DOCUMENT RESUME

ED 118 842 CE 006 385

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TITLE Roles and Objectives of State Research Coordinating Units as Perceived by RCU Directors and State Directors of Vocational Education: An Abstract of a Thesis in Agricultural Education.
PUB DATE May 75
NOTE 171p.; For a summary of the study, see CE 006 384

EDRS PRICE MF-$0.83 HC-$8.69 Plus Postage
DESCRIPTORS *Administrator Attitudes; *Agency Role; Doctoral Theses; Educational Administration; Educational Finance; Educational Research; Objectives; Questionnaires; *Research Coordinating Units; State Agencies; Tables (Data); *Vocational Directors; *Vocational Education

ABSTRACT

The report describes a study comparing the perceptions of Research Coordinating Unit Directors (RCUDs) at various administrative levels and State Directors of Vocational Education (SDVEs) regarding the roles and objectives of the RCUs in the various States. Roughly 90% of the respective samples responded to mailed questionnaires. The data demonstrate that: many RCUs have been administratively relocated since 1966, mostly to within the State Departments of Education (SDEs); RCUs outside the SDE had larger staffs and more experienced directors; more than half of all RCUs administered the State share of exemplary funds; most of the RCUs administering funds from the Educational Professions Development Act were located outside the SDE; RCUDs and SDVEs agreed on the role they perceived and projected for RCUs in various administrative relationships with the SDE; both RCUDs and SDVEs projected and perceived identical roles for RCUs administratively located outside the SDE; both RCUDs and SDVEs projected greater levels of role responsibility than they perceived were occurring for RCUs administratively located within the SDE; and RCUDs and SDVEs assigned relatively equal ranks to a list of 15 RCU objectives. Appendixes list members of the National Advisory Committee and provide the survey instruments and related correspondence. (JB)

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ED118842

Roles and Objectives of State Research Coordinating Units as Perceived by RCU Directors and State Directors of Vocational Education

by

Jesse Stewart Clemmons

An Abstract of a Thesis
in
Agricultural Education

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Education

May 1975

The Pennsylvania State University
The Graduate School
Department of Agricultural Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ABSTRACT

In 1965-66, under authorization of the Vocational Education Act of 1963, 44 Research Coordinating Units (RCUs) were established within the states under grants from the USOE. Presently, due primarily to the strengthening influence of the 1968 Vocational Education Amendments Act, RCUs are in existence in all 50 states. The Units, with little national direction, have developed varying roles and objectives in serving the vocational research needs within individual states. While some states administratively located their RCUs outside the state department of education (SDE), other states placed their RCUs within the SDE, in some cases administratively responsible to the State Director of Vocational Education (SDVE) and in other cases responsible to a position other than the SDVE.

Specifically, the problem addressed was, "Is there a difference in the viewpoints of Research Coordinating Unit Directors (RCUDs) and SDVEs regarding the roles and major objectives of RCUs, and are these views dependent on the location of the RCU -- outside the SDE (Location I), within the SDE responsible to the SDVE (Location II), or within the SDE responsible to a position other than the SDVE (Location III)?" Null hypotheses predicted no differences in perceived and projected roles and major objectives of RCUs by RCUDs and SDVEs by administrative location of the RCU as well as no change over time in major objectives assigned RCUs by RCUDs and SDVEs.

Data were requested from RCUDs and SDVEs in all 50 states. Questionnaires were mailed on August 30, 1974, and subsequent follow-ups resulted in a return rate of 92.0% for RCUDs and 88.0% for SDVEs.

Findings indicated that 57% of the original RCUs were administratively located within the SDE; whereas, in 1974, 86% of them were administratively within the SDE. Staffing patterns, including number of full-time positions and number of full-time equivalent positions, varied according to administrative location of the RCUs. RCUD tenure also varied according to administrative location. RCUs utilized a variety of funding sources in addition to Part C, Section 131(b), of P. L. 90-576. State's share exemplary funds were utilized by 55% of the RCUs. EPDA, Section 552 and Section 553, funds were utilized by 70% of the RCUs in Location I.

Findings concerning perceived and projected role of RCUs by RCUDs and SDVEs varied according to administrative location of the RCU. In general, the findings indicated few significant differences between RCUDs' and SDVEs' perceived and projected roles for RCUs within the three administrative locations. In addition, there were few significant differences in perceived and projected RCU roles by RCUDs and SDVEs across the three administrative locations. However, when perceived and projected roles for RCUs were compared for RCUDs and SDVEs within the three administrative locations, many significant differences were detected. Both RCUDs and SDVEs projected greater levels of involvement for RCUs than they perceived were actually occurring. Major RCU objectives assigned by RCUDs and SDVEs have changed since 1969.

The study resulted in major conclusions that:

1. SDVEs and RCUDs perceived similar roles for RCUs regardless of the administrative location of the RCU.

2. RCUDs and SDVEs both projected a role for RCUs in Location I that was no different from what they perceived it to be.

3. RCUDs and SDVEs both projected a role for RCUs in Location II and Location III that was much more active than they perceived it to be.

4. RCUDs and SDVEs have made moderate changes in the assignment of objectives to RCUs in the five-year period between 1969 and 1974.

5. RCUDs and SDVEs assigned different objectives to RCUs depending on the administrative location of the RCU.

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A Thesis in

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Jesse Stewart Clemmons

Submitted in Partial Fulfillment
of the Requirements
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Doctor of Education

May 1975

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ACKNOWLEDGMENTS

Appreciation is extended to the many individuals who contributed to the completion of this study. The author is indebted to the members of his graduate committee, Professors David R. McClay, Glenn Z. Stevens, Frank Anthony, and K. R. Bennett, and especially to his committee chairman, Professor Richard F. Stinson.

A valuable contribution was also made by members of the national advisory committee of present and former RCU Directors, Dr. Garry R. Bice, Dr. Ferman B. Moody, Dr. Jerome Moss, Jr., Dr. James F. Shill, Mr. Glenn E. Smith, and Dr. William W. Stevenson.

Appreciation is also extended to the RCU Directors and State Directors of Vocational Education who gave of their time to complete and return the mailed questionnaire. Without them the study would not have been possible.

And lastly, a special acknowledgment is due Dr. Charles H. Rogers, Director of the North Carolina Occupational Research Unit, whose continued support and encouragement made a difficult task much easier.

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ABBREVIATIONS USED IN THE STUDY

RCU	Research Coordinating Unit
RCUD	Research Coordinating Unit Director
SDE	State Department of Education
SDVE	State Director of Vocational Education
USOE	United States Office of Education

CHAPTER I. INTRODUCTION

The Vocational Education Act of 1963 (P. L. 88-210) was the first federal legislation to authorize a significant amount of funds to be expended categorically for research and training efforts in vocational education. The Act authorized that 10 percent of the federal operating funds for vocational education be set aside for research efforts. (That 10 percent authorization has yet to become a reality.)

The 1963 Act carried special provisions that allowed for developing an integrated, coordinated research and development component in vocational education. For the first time in 50 years of involvement of the Federal government in vocational education, specific recognition was given an aspect of program development and implementation which previously had received only token acknowledgment. None of the previous vocational education acts spelled out so clearly the need for coordination of efforts on the part of vocational educators everywhere; never before had there been such a strong focus on the needs of local and state agencies for involvement in a concentrated research and development effort.

Francis Keppel, then U. S. Commissioner of Education, sent a memorandum on April 9, 1965, to chief state school officers, executive officers of state boards of education, and State Directors of Vocational Education (SDVEs), inviting state departments of education (SDEs) and universities in each state to submit proposals for establishment of state Research Coordinating Units (RCUs). The rationale for the RCU program recognized that many SDEs were not adequately

staffed to conduct desirable research and training programs specified by P. L. 88-210 and suggested an appropriate first step to be the establishment of occupational research and development units in which productive results could be obtained.

The call from Commissioner Keppel for establishing RCUs represented an attempt to meet the criticisms voiced in congressional hearings on P. L. 88-210. One of the major criticisms was that research in vocational education was sporadic, uncoordinated, and chiefly directed toward program operations. In addition, the Act included provisions ". . . to assist (states) to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis . . . ."

The original invitation to submit proposals was rapidly accepted by 24 states, which have now had Units in operation for approximately 10 years. Subsequently, the remainder of the 50 states, plus Trust Territories of the Pacific Islands, American Samoa, Virgin Islands, Puerto Rico, Guam, and Washington, D. C., established RCUs. In 1969, Goldhammer identified 26 Units administered through SDEs, 14 Units administered through universities, and four Units administered through combinations of SDEs and universities or foundations.

The character of RCUs seems to be changing, the trend being toward locating them in SDEs and incorporating them into larger across-the-board research and development units with steadily increasing allotments of funds.

General Statement of the Problem

The general objective of this study was to describe the roles and objectives of the various RCUs as perceived by Research Coordinating Unit Directors (RCUDs) operating in various administrative settings and to compare these perceptions with those of SDVEs regarding the roles and objectives of RCUs.

More specifically, the study proposed to:

1. Describe the major roles and objectives of RCUs as perceived and projected by RCUDs.
2. Describe the major roles and objectives of RCUs as perceived and projected by SDVEs.
3. Compare and contrast the perceived and projected roles and objectives of RCUs held by RCUDs and SDVEs within similar and different administrative settings.

Need for the Study

The only original guidelines concerning the establishment and operation of RCUs were the typically broad statements of intent in the 1963 Act and a set of equally vague "guideline" objectives contained in Commissioner Keppel's call for proposals in 1965. The Act spoke only of ". . . research and training programs and . . . experimental, developmental, or pilot programs . . ." in its reference to what were to become state RCUs.

Commissioner Keppel's letter specified eight broadly stated objectives that would later comprise the nucleus of the RCUs. These eight objectives related to the areas of dissemination, program planning, the change process, research coordination, statistical

reporting to the United States Office of Education (USOE), and stimulation of research training efforts.

The 1968 Vocational Education Amendments Act (P. L. 90-576) spelled out the role of the RCUs only slightly better by specifying several broad areas of concern. These were (1) research in vocational education, (2) research training programs, (3) projects designed to test the effectiveness of research findings, (4) demonstration and dissemination projects, (5) development of new vocational curricula, and (6) projects in the development of new careers and occupations.

From these general mandates the currently operating RCUs have developed into a diverse group of organizations whose activities fit roughly into the categories of research, development, technical assistance, and dissemination. The amount of emphasis placed on each activity depends on the philosophy and role delineation perceived by the individual RCU. Some RCUs operate rather autonomously, doing research-type activities in a university setting, while others operate rather pragmatically, performing technical assistance activities in a SDE setting. Their sizes range from a staff of one professional with minimum federal funding to a staff of 15-20 professionals utilizing a variety of federal and state funds.

It is difficult to describe overall roles and objectives of RCUs. Consequently, it is equally difficult for an individual RCU to gain perspective on its role and objectives as it prepares to formulate annual and long-range plans of action. Admittedly, each RCU must operate within its individual context of constraints and resources. It would, however, be helpful for each RCU to be familiar with the roles and objectives of other RCUs in similar settings.

The U. S. Office of Education and the National Institute of Education also have a need to understand and describe adequately the roles and objectives of the various RCUs in order to conceptualize and provide leadership to the vocational research and development program in the United States.

RCUs have also developed roles of varying relationships with SDVEs. Depending on the philosophy of the individual state, the Units have developed roles ranging from being on the SDVE's staff and completely controlled by him to being located completely out of the SDE and operating practically autonomously from the SDVE. Specific examples of both types can be identified as "good" RCUs.

The need that is developing, both nationally and state-by-state, is to describe accurately the roles and objectives of the RCUs as seen by RCUDs, and the SDVEs' perceptions of the roles and objectives of RCUs and their degree of congruence with the RCUDs' perceptions of their roles and objectives.

The Development of State Research Coordinating Units

Research in vocational education has been a long-recognized need. The earliest formal recognition of the need can be traced to the 1917 Smith-Hughes Act (P. L. 347), which made provisions for research as follows:

> It shall be the duty of the Federal Board for Vocational Education to make, or cause to have made, studies, investigations, and reports, with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics.

Evidently the Smith-Hughes provisions for research were never implemented to their fullest. Twenty-one years later the Advisory Committee on Education (Russell, 1938) strongly censured the "inadequate reporting" of the program.

In those years, however, research did continue to receive at least the administrative blessings of the U. S. Office of Education. The 1946 George-Barden Act (P. L. 586) recognized the magnitude of the task and provided specifically for research by the states. In light of the provisions of the Smith-Hughes Act of 1917 and the George-Barden Act of 1946, the U. S. Office of Education administratively recognized vocational education research with the inclusion of the following in its bulletin to the states, Administration of Vocational Education (U. S. Office of Education, 1962):

> Expenditures may be made under the State plan for research that will function directly in the furtherance of any or all of the federally aided fields of vocational education, when such research is conducted as a part of a State program of administration, supervision, or teacher training.

By that action research was authorized and encouraged. However, the Panel of Consultants (U. S. Office of Education, 1963) noted that "much has been done, but the results have not been commensurate with the needs" (p. 195). The Panel of Consultants criticized vocational education research even more strongly as it observed:

1. Much of the research has been applied research.
2. Little attention has been paid to research in the basic sciences and disciplines that underlie vocational education, such as the psychology of learning, specific manipulative and technical skills, human relations in occupational settings, and the like.

3. There has been little experimental research under controlled conditions.

4. A considerable amount of the research has been somewhat superficial, with little depth or penetration. The gathering and classification of the data have absorbed so much energy that little was left for reflective thinking with respect to the meaning of the data collected.

5. Although most of the research has been local in scope, with relatively little value outside the local area, a number of large-scale cooperative projects have been undertaken involving more than one state. Leadership for some of these studies has come from the U. S. Office of Education.

6. Vocational education has utilized but little the resources available under the broad cooperative research program of the Office of Education.

7. The reports of many studies have had limited circulation, perhaps through lack of a suitable medium for publishing the research findings and because of limited editions of published studies. (p. 197)

The Panel of Consultants in its concern for vocational education research attempted to identify the causes of the inadequate research efforts. It reasoned that:

1. Few persons have been trained for the field of research in vocational education, perhaps because the opportunities for full-time employment in research in this field are limited.

2. Most vocational educators are pragmatists, interested mainly in the tasks they are held responsible for, rather than in research. They usually undertake research only when faced with a problem that demands it and shy away from really tough research jobs that require a great deal of time, energy, and concentrated reflective thinking.

3. Much of the research in vocational education grows out of requirements for graduate degrees. These requirements, especially at the master's-degree level, can often be met by minor studies rather than through comprehensive research projects. Too few persons in vocational education have taken enough graduate work to be able to do good research, and many of those who carry out extensive research studies lose their interest in research when the requirements for the degree have been met.

4. University professors in vocational education fields, who might be expected to carry on research themselves, are often so loaded with teaching and other duties that they have no time and energy left for research. Many of them prefer to teach. Sometimes the available time beyond that required for teaching, which might be utilized for research, is devoted to outside paid consultant service to supplement low salaries.

5. Comprehensive research requires special facilities and adequate financing, which have not been available.

6. Research activity on the part of many vocational educators has been neglected because their superior officers do not recognize its value and do not give sufficient recognition for work in this field. (pp. 197-198)

The Panel of Consultants concluded there have been relatively few comprehensive studies and many small ones. The larger studies generally have been carried out with good research techniques but ". . . many of the smaller studies have been limited in scope, and somewhat superficial in depth" (p. 196). In concluding its summary of the state of vocational education research in 1963, the Panel of Consultants reported:

. Although a considerable amount of research has been carried out, it falls far short of meeting current needs.

- Some compilations of completed research projects have been made at the national level -- largely graduate student theses -- but no comprehensive reporting has been done, and little has been done with respect to coordination of research activities.

- Research projects in vocational and technical education have largely been confined to those of normative-survey type, with little attention paid to experimental research under controlled conditions. (p. 202)

The Panel of Consultants recognized the importance of research in the field of vocational education and declared that steps must be taken to develop research commensurate with needs. Noting the conditions of a rapidly changing world, the Panel recommended research in the broad areas of organization, curriculum content, and methods of instruction. The Panel of Consultants observed that "This is the task of research -- on a broad scale -- from specific studies of detailed problems to nationwide studies of problems involving the whole country" (p. 194).

The outgrowth of the Panel of Consultants' work was the Vocational Education Act of 1963. Specific recommendations of the Panel to the drafters of the legislation included, from a research standpoint, that:

- Extensive research and program development be performed where adequate facilities and research personnel are located or can be assembled. Such centers would usually be located at universities. Developmental projects will more often be located in local districts. These activities can only be performed where persons are knowledgeable concerning research methods and have facilities for proper control and evaluation of the activities under study.

> . Research be encouraged, initiated, and coordinated at the national level. The results of research and development should be made available on a nationwide basis. An effort should be made to prevent duplication or extensive overlapping of research efforts. (pp. 243-244)

The final version of the Vocational Education Act of 1963 included provisions for the Commissioner of Education to make research grants to the states even though it did not mention RCUs as such. Section 4(c) read as follows:

> Ten per centum of the sums appropriated pursuant to section 2 for each fiscal year shall be used by the Commissioner to make grants to colleges and universities, and other public or nonprofit private agencies and institutions, to State boards, and with the approval of the appropriate State board, to local educational agencies, to pay part of the cost of research and training programs and of experimental, developmental, or pilot programs developed by such institutions, boards, or agencies, and designed to meet the special vocational education needs of youths, particularly youths in economically depressed communities who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education programs.

Many SDEs were obviously not staffed to conduct desirable research under section 4(c) of the Vocational Education Act of 1963. The U. S. Office of Education, in a letter to state school officers and executive officers of state boards of education from Commissioner Francis Keppel, dated April 9, 1965, suggested establishment of "state research coordination units." All states were invited to submit proposals for establishment of such Units. Obviously, the emphases of such Units varied from state to state depending on the status of vocational research in the individual states. One year later the following

suggestions were made in a letter to SDVEs from the Director, Division of Adult and Vocational Research, USOE, dated March 11, 1966 (Bushnell, 1966 b):

1. Identify issues and problems relating to the nature and place of vocational education in the State school system, and determine the contributions which occupational research and development could make in resolving them.

2. Identify and maintain an inventory of available occupational research and development resources in light of anticipated needs and programs within the State.

3. Survey available data on employment opportunities, emerging occupational trends, and future job projections, as a base for planning vocational programs, curricula, and facilities within the State, and teacher training, recruitment, and placement.

4. Stimulate and encourage occupational education research and development activities in State departments, local school districts, colleges and universities, and nonprofit organizations.

5. Participate in the development, monitoring, or conduct, as appropriate, of occupational research and development projects supported by Federal, State, local, or private organization funds.

6. Coordinate occupational research activities conducted within the State by the agencies noted above, and with those being conducted outside the State.

7. Disseminate information on the progress and applications of the results of occupational education research.

8. Stimulate activities which will result in increased interest and improved competence in research such as encouraging preservice and inservice training of occupational researchers.

"The states were asked to focus attention on the matter of research, with the intent of maximizing both the quantity and quality of the effort directed toward the general improvement of vocational education" (Advisory Council on Vocational Education, 1968, p. 72). The RCUs were supported by the U. S. Office of Education, under the provisions of section 4(c) of the Vocational Education Act of 1963. Each state, upon submission and approval of a project proposal as required for all 4(c) projects, was funded for a period of three years. The intent was that after the initial funding period Federal support would be gradually phased out in anticipation of full support from the state or institution sponsoring the program.

Twenty-four RCUs were authorized for fiscal year 1965 and an additional 20 were authorized for fiscal year 1966. Some of the states chose to organize the RCU as a part of the general administrative organization of vocational education at the state level, while others developed a cooperative plan with one of the state universities. One state (Kansas) assigned the responsibility to a research foundation. The administrative placement of the original 44 RCUs is shown in Table 1.

Table 1. Placement of the original forty-four RCUs in the state organizational system.[1]

Location	Fiscal Year 1965	Fiscal Year 1966	Total
State Department of Education	14	11	25
University	10	8	18
Research Foundation	0	1	1

[1]Source: Vocational Education, The Bridge Between Man and His Work, p. 72.

The six states not receiving funding for an RCU during either fiscal year 1965 or fiscal year 1966 were Alaska, Maine, Maryland, South Dakota, Vermont, and Virginia. During fiscal year 1965 and fiscal year 1966, a total of $3,864,376 of federal monies was invested in the implementation of the 44 RCUs. First year federal grants averaged $87,428 and ranged from $133,199 for Pennsylvania to $39,481 for Rhode Island. These federal grants, however, in no way indicated the fiscal strength of RCUs because many states chose to supplement the federal grant with considerable amounts of state funds.

RCUs were at last established and beginning to operate vocational education research programs. The Advisory Council on Vocational Education (1968) later reported that, in general, the following types of activities were undertaken in most states:

1. Establishment of a State Research Advisory Committee composed of representatives from colleges and universities, vocational schools, State department of education, local school districts, State employment service, business, industry, and labor.

2. Inventory of research resources within the State, including the identification of individuals and organizations actually or potentially involved in vocational research.

3. Review of State vocational programs and identification of outstanding problems amenable to research.

4. Formulation of overall State research philosophy, establishment of research priorities, assignment of roles, and coordination of efforts.

5. Dissemination of research information and findings through conferences, newsletters, and other media.

6. Review of research proposals and provisions of technical consultant services to local school district researchers and others. (p. 75)

The Advisory Council on Vocational Education (1968) was generally complimentary of the research effort for the years 1965-1968 although it readily admitted that objective evaluative data were not available. The Council noted that:

> The great need for program related research was a pressing requirement in 1963, it is even more urgent in 1967. The great need for more basic studies was obvious in 1963, but it is relatively less urgent now, since a start, at least, has been made on studies of this type. Clearly the greatest need now is for research which will lead directly to modification of vocational education programs . . . . (p. 134)

The Council also noted the need for full funding of research (10 percent), and suggested that:

> Failure to guarantee the full amount of funds provided by law will continue to aggravate a national attempt to improve the effectiveness of vocational education through research. (p. 135)

Primarily, as a result of the work of the Advisory Council on Vocational Education, the Vocational Education Amendments Act of 1968 (P. L. 90-576) included language specifically authorizing and encouraging RCUs. The term "research coordination unit" appeared in legislation for the first time. Title I, Part C, Section 131(b) of P. L. 90-576 reads as follows:

> The remaining 50 per centum of the sums available to each State for the purposes of this part shall be used by its State board, in accordance with its State plan, (1) for paying up to 75 per centum of

> the costs of the State research coordination unit, and (2) for grants to colleges and universities, and other public or nonprofit private agencies and institutions, and local educational agencies and contracts with private agencies, organizations, and institutions to pay 90 per centum of the costs of programs and projects for (i) research and training programs, (ii) experimental, developmental, or pilot programs developed by such institutions and agencies and designed to meet the special vocational needs of youths, particularly youths in economically depressed communities who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education programs, and (iii) the dissemination of information derived from the foregoing programs or from research and demonstrations in the field of vocational education, which programs and projects have been recommended by the State research coordination unit or by the State advisory council.

The language of the 1968 Act, while encouraging RCUs, allowed the Commissioner to retain one-half of any funds allocated under Part C. The Commissioner initiated the practice in fiscal year 1972 and has continued it to date.

Even though the legislation of 1963 and 1968 "authorized the appropriation" of 10 percent of vocational education funds for research, it has never become a reality. Research funds have fluctuated considerably over their 10-year history. Table 2 lists the amounts of funds allotted to the states under the 1963 and 1968 Acts for the fiscal years 1965 through 1974. (It is anticipated that the level of funding for fiscal year 1975 will remain the same as that for fiscal year 1974.)

Table 2. Allocation of vocational education research funds to the states, fiscal year 1965 - fiscal year 1974.

Fiscal Year	Research Funds Allotted to States
1965	$2.2 million
1966	1.7 million
1967	1.9 million
1968	1.6 million
1969	0.6 million
1970	1.1 million
1971	17.5 million
1972	9.0 million
1973	9.0 million
1974	9.0 million

During the period since the 1968 Act, RCUs have been established and are operating in all 50 states, the five territories (Trust Territories of the Pacific, American Samoa, Virgin Islands, Puerto Rico, and Guam), and Washington, D. C. Two significant trends are evident. First, it appears the states are beginning to supplement federal funds in excess of the minimums required. Second, and probably as a result of the first-mentioned trend, more and more RCUs are being administratively relocated within SDEs. Of the original 44 RCUs, 25 were located within state departments of education. In the present study, 43 of the 50 RCUs were located within SDEs.

Gordon Swanson, in a presentation to the 1973 RCU Personnel Conference in Scotsdale, Arizona, commented on the strengths of RCUs in the perspective of their first nine years of operation. His comments, transcribed from a tape recording, are as follows:

> 1. The key individuals in the research organization are fully aware and sympathetic to the principal goals of the organization but at the same time, the research mission is defined in broad enough terms so that it retains its validity as circumstances in the state of technology change. RCUs measure high on this . . . .

2. People within the organization are willing to move between fundamental research and application research and are willing to change specialities and scientific disciplines. The artificial barriers that sometimes exist between disciplines and between fundamental work and applications are at a minimum. Here again, it is my opinion at least, that RCUs stack high on the scale.

3. The organization is quick to recognize new ideas and to fund work based on them at least up to the point where the feasibility or desirability of a larger commitment can be established. Again, it seems to me, that RCUs are high on this scale.

4. At each organizational level the individual has the freedom in really trying the resources at his disposal without extensive review by higher authority. That is the class where RCUs are high on the scale. They do have the freedom for deploying resources except there is full communication through all stages of the research and development process from original research to ultimate implication . . . . I think that RCUs as a system are higher on that scale than any other.

5. And, in the category of success, the RCU system is already a decentralized system. It operates from several funding sources and is as decentralized as almost any system you can think of today. This is a desirable thing. It happened by design rather than by accident and it is one of the genuine strengths of the entire system.

6. It is a durable system. Can you find another research system in this country today that's nine years old? Can you find a system that's nine years old and still has optimism? They're tough to find, and, while you may talk as though you're an underdog, you should get rid of that underdog role in a hurry because you're the standard bearer. This is one of the more durable systems in operation.

CHAPTER II. REVIEW OF LITERATURE

The literature was reviewed in order to establish a conceptual base for the study and to describe the previous research done in the area. This chapter presents a theoretical framework for the study, a review of publications describing roles of RCUs, and a discussion of the concepts of role and role analysis.

Theoretical Framework

The conceptualization of this study was derived partly from the literature and partly from personal experience of the investigator. Stated generally, it stipulated that perceived role, and subsequent role behavior, of an institution is a function of that institution's administrative spatiality. More specifically, it was based on the following two postulates:

Postulate 1: The administrative spatiality of an institution affects the role perceptions of that institution by its incumbent members. This postulate was supported in part by the research of Swanson (1968) in his study of role perceptions of members of state departments of vocational education. Swanson (1968) surveyed 39 states and classified their departments of vocational education as to whether the SDVE reported either directly to the state board for vocational education, to the chief state school officer, or to a lower level of administrative authority. In the five states sampled in which the SDVE reported directly to the state board for vocational education (either a separate or a joint board), members of the staff tended generally to perceive themselves as performing more actual

leadership and regulation than did the staff in states in which the SDVE reported either to the chief state school officer or to a lower level of administrative authority. Moreover, the group whose directors reported directly to the state board appeared to be somewhat more self-satisfied in that they perceived less need for more leadership, regulation, or involvement when compared with the other two groups.

The group of state staff members in states in which the status of the SDVE was the lowest in the hierarchy of state-level administration of public education tended to have lower self-concepts of their leadership, regulations, and involvement activities than did either of the groups with higher status. Moreover, they evidenced a striving for more leadership, regulation, and involvement than did the two groups with higher status. Swanson (1968) concluded that his data appeared to confirm:

> . . . that there is a positive relationship between perceptions of state-level administration of vocational-technical education and the position of the state division of vocational-technical education in the hierarchy of the state administration of public education. (p. 73)

The same argument could apply just as well to a subsystem of "the hierarchy of the state administration of public education." Huber (1973) presented a concrete example of this when he, in discussing the development of state RCUs, commented that:

> Some RCUs were established on university campuses where sophisticated research scholarship and training of vocational education researchers could be accomplished. Other RCUs were located in state departments of education where they could relate to the users, coordinate the development activities, and disseminate research information most appropriately. (p. 2)

It is on these bases that the postulate concerning the relationship of an institution's administrative spatiality to the role perceptions of its incumbent members was reached.

Postulate 2: The degree of congruence of the role perceptions of an institution by persons in different administrative positions is affected by the administrative spatiality of the positions. It seems reasonable to expect that the incumbents of two positions will, in general, hold closer views on a given subject if they are located closer together in an administrative hierarchy than if they are further apart. The closer together they are the more likely they are to experience common problems, to be exposed to similar learning experiences, and to be in contact with the same people as well as each other. Riecken and Homans (1954), in discussing consensus on norms and values in their review of psychological factors involved in group phenomena, wrote:

> The degree of consensus may depend on the members' similarity in cultural and social background, and also on the length of time the members have been in interaction with one another. (p. 788)

And, still on the subject of interaction, Gross et al. (1958) wrote:

> In the course of interaction, individuals not only act in relation to one another, but they react, express approval and disapproval, communicate their own expectations and gain ideas about the expectations of others. (p. 176)

In their study of role expectations among school board members and school superintendents, Gross et al. (1958) discovered a positive relationship between the amount of interaction among school board members and the amount of consensus among them.

On these bases the postulate concerning consensus of role expectation among incumbents of different administrative positions was reached.

Role of State Research Coordinating Units

There is a lack of definitive research describing the roles and objectives of RCUs. Only one research study of national significance, that of Goldhammer et al. (1969), could be located. Several other studies, primarily editorials and position papers, were located which vaguely addressed the issue of role and role perception of RCUs. Studies which addressed themselves to analysis of the role of RCUs were included in this review.

Historically speaking, the U. S. Commissioner of Education provided the first role definition for RCUs. In his first memorandum to the states concerning RCUs, dated April 9, 1965 (Keppel, 1965), the Commissioner suggested that "the unit (RCU) would initiate activity when that is needed or strengthen coordination of existing activities, depending upon the status of the occupational research program in a State." He (Keppel, 1965) suggested eight functional areas of activity:

- Stimulating and encouraging occupational education research and development activities in State departments, local school districts, colleges and universities, and nonprofit organizations.
- Coordinating occupational research activities conducted within the State by the agencies noted above, and, further, coordinating such research activities with those being conducted outside the State.

- Disseminating information on the progress and application of the results of occupational education research.

- Stimulating activities which will result in increased interest and improved competence in research such as encouraging pre-service and in-service training of occupational researchers.

- Participating in the review, monitoring, or conduct, as appropriate, of occupational research and development projects supported by Federal, state, local, or private organizations.

- Identifying and maintaining an inventory of available occupational research and development resources in light of anticipated needs and programs within the State.

- Surveying available data on employment opportunities, emerging occupational trends, and future job projections, as a base for planning vocational programs, curricula, and facilities within the State, and teacher training, recruitment and placement.

- Identifying issues and problems relating to the nature and place of vocational education in the State school system, and determining the contribution which occupational research and development could make in resolving them. (pp. 1-2)

In later correspondence from the U. S. Office of Education (Bushnell, 1966 b; Bushnell, 1968), the same eight areas were restated as functional areas within which RCUs should concentrate their energies. No official statement of role or objectives for the RCUs from the U. S. Office of Education postdating the 1968 Bushnell letter could be identified.

Huber, in a 1973 position paper, touched on the role of RCUs. He listed six "activity" areas with which RCUs should concern themselves:

1. Review vocational programs within the state.
2. Disseminate research information.
3. Identify competent research resources within the state.
4. Formulate research priorities.
5. Review research proposals and make recommendations for funding.
6. Provide technical consultative service to those conducting research, management, and coordination of vocational R and D efforts. (pp. 1-2)

Huber (1973) commented that "Functionally, several RCUs have developed highly regarded research capabilities while others have developed sophisticated research dissemination operations. The remaining RCUs operate at various levels between these functions depending on their perception of the needs within their own state" (p. 2).

Hull et al. (1969) suggested a list of functions for RCUs that are "necessary to the systematic improvement of occupational education practice." An abstracted list of the functions follows:

1. Conducting operational and applied research.
2. Developing new and updating existing curriculums and instructional materials.
3. Evaluating the effects of occupational education programs.
4. Stimulating, facilitating, and coordinating the innovative research and development efforts of individuals and groups.
5. Inventing, engineering, producing, and evaluating prototype innovative curriculums and instructional materials.
6. Conducting applied research.

7. Administering research-related grants and contracts with agencies and institutions.

8. Disseminating the results of research-related activities.

9. Coordinating and conducting research training activities.

At the 1971 National RCU Conference in San Diego, California, Barker (1971) presented the results of a survey that queried RCUDs as to their involvement with Part D (state's share) exemplary programs in vocational education. This survey is one of only two that could be located which present actual documentation as to the role of RCUs. The survey contained responses from 41 of the 56 RCUDs surveyed.

A summary of the responses indicated that 40% of RCUs administered the state's half of exemplary funds provided by P. L. 90-576. Six RCUDs reported they had nothing at all to do with exemplary programs. The remaining RCUDs indicated their role relative to exemplary programs consisted of:

1. Assistance in evaluation design, proposal development, and serving as a source of innovative ideas.

2. Furnishing information, materials, interpretations and contact persons.

3. Rating and/or making final selection of projects.

4. Functioning as evaluator of project.

5. Disseminating program information.

A study by Goldhammer et al. (1969) provides the most definitive role statement of RCUs to date. Whereas the other literature reviewed dealt mostly in broad objectives and vaguely stated goals or activity areas, the Goldhammer study attempted to specify role functions

of RCUs. The study is described more thoroughly in a later section of this chapter.

In summary, the review of literature pinpointed a major problem: there was no clear, concise statement of major roles and objectives of RCUs. What statements did exist were mostly editorial with very little supporting documentation. In addition, no studies could be located which described the relationship of RCUs to SDVEs.

Review of Related Research - The Goldhammer Study

Goldhammer et al. (1969) performed a program evaluation of the 44 RCUs in operation during 1969. The study, done for the U. S. Office of Education, had four main objectives:

1. To determine the extent to which federally defined objectives of the RCU have been achieved;

2. To determine the extent to which federally defined objectives of the RCU program are congruent with the objectives of individual units;

3. To determine relation between achieving objectives for the RCU program and antecedent and independent variables including federal intervention factors, staff, administrative structure, communication pattern, location, length of operating time, and operational pattern;

4. To determine effectiveness with which funds have been used by comparing benefits derived from a planned network of coordinating units and independent vocational research operations with benefits measured in terms of the image of vocational education, cooperation between vocational education and employment agencies, implementation of research in school programs, involvement of business and industry, and development of programs for those with special needs. (p. 3)

Data were collected for the study via a mailed questionnaire which was sent to RCUDs, SDVEs, university personnel, university-centered RCUD supervisors, and local directors of vocational education as well as on-site interviews in seven states. Questionnaire return rates for RCUDs and SDVEs were 85% and 72%, respectively. The intent of the study was to ". . . present the RCU program as it is rather than to attempt to make evaluative statements about individual programs" (p. 4).

There was little consistency of agreement among RCUDs as they ranked the following list of 16 objectives for priority in their RCU:

1. To disseminate information on progress and application of occupational research.
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.
3. To create change in the administration of local vocational education programs.
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.
6. To act as a clearing house for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollment, etc.
7. To identify and maintain an inventory of available occupational research and development resources in the state.

8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.

9. To serve as a statistical research reporting service for the State Department of Education.

10. To review and monitor occupational research and development projects.

11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.

12. To conduct occupational research and development projects.

13. To initiate research projects through involvement of RCU staff in proposal-writing.

14. To determine occupational research needed to resolve the major vocational education issues and problems.

15. To identify issues and problems relating to the nature and place of vocational education in the state school system.

16. Other (specify).

Goldhammer et al. concluded that "It is significant, however, that more than half the respondents (RCUDs) selected objective 11 as either the first or second order priority, and about one-third of the directors selected objective one as either the first or second order of priority" (p. 11).

The SDVEs were also asked to select six objectives from the list of 16 RCU objectives and rank them in order of priority. It was apparent that SDVEs were in no more agreement than RCUDs. As was true of the RCUDs, the SDVEs chose objective 11 more frequently than any of the others. However, only 19.4% chose it as a first order priority

while 22.8% chose it as a second order priority. Data abstracted from the Goldhammer study pertaining to prioritizing of objectives by RCUDs and SDVEs are summarized in Table 3.

Table 3. RCU objectives ranked by assignment to top six priorities by RCUDs and SDVEs in 1969.[1]

Objective	Rank[2] According to Assignment by RCUDs	Rank[2] According to Assignment by SDVEs	Difference in Ranks Assigned by RCUDs and SDVEs
1	1	2	1
2	4	5	1
3	14.5	13	1.5
4	11	3	8
5	3	10.5	7.5
6	13	16	3
7	9.5	8	1.5
8	5	7	2
9	14.5	14.5	0
10	9.5	10.5	1
11	2	1	1
12	6.5	4	2.5
13	8	9	1
14	6.5	6	.5
15	16	12	4
16	12	14.5	2.5

[1]Data derived from: Goldhammer et al., Research Coordinating Unit Program Evaluation, Center for Educational Research and Service, Oregon State University, Corvallis, Oregon, 1969.
[2]Highest = 1, Lowest = 16.

It is apparent from data in Table 3 that RCUDs and SDVEs assigned relatively equal importance to RCU objectives with the exception of objectives four and five. RCUDs assigned a high rank to objective four concerning coordination of in-state and out-of-state research activities and a low rank to objective five concerning coordination of research activities among different in-state agencies. The SDVEs assigned almost opposite ranks to the two objectives. Apparently RCUDs saw RCUs as agents of national research coordination while SDVEs saw them as operating primarily in-state.

The questionnaire mailed to RCUDs contained a large number of open-ended questions. The questions fell into the general categories of (1) obstacles to achievement of RCU objectives, (2) RCU strengths, (3) choice of five best projects, (4) services provided to colleges and universities, (5) services provided to SDEs, (6) services provided to other state agencies, (7) involvement with the ERIC center, (8) involvement with regional education laboratories, (9) involvement with the USOE regional office, and (10) services provided to local school districts. The instrument was noticeably long.

In summary, Goldhammer et al. (1969) concluded that the data indicated:

> . . . a significant variance in selection and priority ranking of objectives among RCU and state directors, between RCU directors from state to state, and between RCU and state directors taken as a group. (p. 24)

They further concluded that:

> This [the data] would indicate rather divergent views of goals and purposes of RCUs from state to state and that states are utilizing a 'state's rights' approach in ordering priorities which will meet the needs of occupational education research in any given state. (p. 25)

In addition, Goldhammer et al. reported that while few states selected non-USOE objectives, each of those objectives were listed as a <u>first</u> priority by one or more RCUDs.

The "conclusions and recommendations" section of the Goldhammer study included points specifically applicable to this study. In no

way should it be intimated that the entire Goldhammer report was summarized; however, points with special application to this study follow.

Commenting that ". . . the RCU represented the classical dilemma of the sociological marginal man -- caught between diverse if not conflicting role expectations and praised or criticized by persons holding either perspective" (p. 59). Goldhammer et al. (1969) enumerated three dichotomies which existed relative to RCUs:

1. The dilemma between research and development. Most RCUs did not have a clear set of expectations relative to whether or not they should be engaged in research and development, either or both. Some claimed to be involved in research, but took no responsibility for development, which was considered a responsibility of some other agency. Some RCU personnel disavowed a responsibility for research, claiming only developmental functions. In either case, RCU official positions were not always congruent with perspectives of their roles held by the clientele groups they served.

2. University-state department of education dilemmas. Although only slight differences were found due to location of the RCU, expectations differed for the two locations and clientele also differed as to where they would feel the RCU could be most appropriately situated. University adherents argued that sophisticated research scholarship, and the training of vocational education researchers could best be accomplished through its stewardship, while the state department advocates held that this agency could best relate RCUs to the field and could accomplish the developmental, information-disseminating, and coordinating functions most appropriately.

3. The dilemma of role assumption. The RCU was generally caught between the horns of different perspectives regarding the future

> organization of the field of vocational education. Should it work within the present service fields? Or should it stress the over-all vocational education development and disregard the traditional fragmentation? The dilemma was expressed in terms of those who felt RCUs should be supportive of the existing structure within the field and those who held that it should provide leadership and attempt to move the field toward a more unitary conception. The latter group felt that the RCU should engage in activities which would enhance the development of a relevant, career-oriented, future-looking curriculum which would meet the needs of the eighty percent of the students who do not benefit entirely from the traditional curriculum. The former group felt that RCUs were organized to serve the existing structure and its needs, not to impose new directions upon the field. (pp. 59-61)

In conclusion, Goldhammer et al. (1969) stated:

> Specific location of the RCU, whether at university, state department of education, or other location, has not affected the specific contribution of RCUs to the vocational education research effort to a discernible degree. This does not overlook the fact that in some states serious problems of communication between various vocational education agencies exist because of location. However, RCU location in and of itself does not appear to have been a specifically limiting factor. (p. 65)

And, in commenting on the diversity of roles RCUs had assumed,

Goldhammer et al. (1969) finally concluded:

> Objectives not listed for RCUs by the U. S. Office of Education were chosen as first, second, and third priorities for RCUs by both RCU Directors and state directors of vocational education. It appears that to a limited extent RCUs are attempting to achieve goals not initially established for them; at least some people important to RCU functioning feel that RCUs should be moving in directions not initially intended by the USOE. (p. 66)

The Concept of Role

Although the literature abounded with normative statements concerning the aims and purposes of RCUs, there was little concrete information regarding either what they do or the objective consequences of their activities.

As the tasks and objectives of RCUs were investigated, their role was being examined. Eckel (1969) conceived role as the "rights" and "obligations" of a person in a certain position, and declared that a certain behavior is expected of this focal person who in turn expects others in related positions to exhibit certain behaviors in reference to him. Guss (1961) contended that an individual's perception of himself and his role largely determines his behavior and that this self-image is partially a result of the expectations of others.

Secord and Bachman (1964) stated:

> A person regularly expects that he will behave in a certain manner, and he usually has definite expectations concerning the behavior of persons with whom he interacts. (p. 454)

However, Shibutani (1961) argued:

> . . . in a changing society there are many roles that are only vaguely defined; the claims and obligations of those who are more or less related to one another are not firmly established, and much depends upon the personal views of those who happen to be involved . . . Hence, group norms and roles may be regarded as products of collective adjustments to life conditions. (p. 53)

Many studies have concerned themselves with the incongruence, or conflict, of role perceptions of different individuals. Lane (1967) wrote simply: "As long as there is more than one position in an organization, there will be some degree of role conflict" (p. 75).

The American Association of School Administrators 1955 Yearbook (1955) says a person is placed in a difficult position with the likelihood of his associates being suspicious and resentful of his activities unless the duties and responsibilities of a newly created position are defined. Kahn et al. (1964) found conflict to be characteristic of innovative roles. The desire to maintain the status quo held by the "old guard" produces this conflict with the occupants of these innovative roles. Shibutani (1961) pointed out that:

> Conventional roles are learned through participation in organized groups. Models of appropriate conduct differ from group to group. Steady coordination depends upon the extent to which the participants share conceptions of one another's roles. Where this is not the case, there is bound to be misunderstanding and perhaps conflict. (p. 51)

Role conflict among educational personnel has been illustrated in many studies. For instance, Vigilante (1966) concluded:

> Leadership problems, notably resistance to change at the principal-supervisor level, generally occur because the attitude balance in the principal-supervisor relationship has been disturbed . . . A mutual respect balance exists when each is respected and is encouraged to practice and pursue the satisfactions of his position until the pursuit infringes on the right of the other to do the same . . . The supervisor's and the principal's perceived view can function as a hidden source of disagreement and friction or it can serve as a catalytic agent which brings about change. (p. 641)

Gross et al. (1958) found that superintendents and school board members each assigned more responsibility to their own position than to the position of the other. A study by Leidheiser (1970) found that the supervisors and administrators of the Ohio Cooperative Extension

Service held incongruent perceptions of the individual tasks, and thus the total job of the supervisor. Therefore, the possibility of role conflict existed. Urick and Frymier (1963) pointed out, "The existence of ill-defined relationships among teachers, administrators, and supervisors and of conflicting perceptions of the role each sees himself and others playing may combine to inhibit the consideration of change" (p. 108).

A study by Barlow and Reinhart (1969) showed that trade and technical leaders strongly felt that vocational education should be placed under the administration of vocational educators. This reaction was explained to mean that other types of educational leaders may not be considered as knowledgeable, appreciative, or as easy to work with in trade and technical education. The study also suggested that the trade and technical leaders felt if all educators had a better understanding of the vocational educator's role and if their rank were increased, they could be more effective.

The literature concerning duties and responsibilities of educational personnel was also surveyed. Wiser (1965) reported:

> A school system, and all segments of education, must have the finest kind of team work with each person playing his own position well and in full coordination with the total effort. We must know what the other members are doing if we are going to cross the goal lines of education. (p. 44)

In the same vein, Vigilante (1966) said, "Optimum relationships can be developed when one is fully conscious of his own basic commitments or assumptions as he is of the basic commitments or assumptions held by others" (p. 641). Hettinger (1959) stated: "The administrative

objectives of any educational institution should be the performance of executive and operational duties so that the educational objectives of the institution may be effectively achieved" (p. 94). The American Association of School Administrators (1955) stated, "In educational administration, principals, supervisors, superintendents, and school board members all have special responsibilities for inducing other persons to contribute to the attainment of the objectives of the schools" (p. 10). The American Association of School Administrators (1958) later reported:

> To accomplish all the tasks, the administrative organization must reconcile responsibility with authority, provide time and personnel, and make all the resources of the school and community readily available so that the program of instruction may be rich, meaningful, and productive . . . The specificity of areas of responsibility and authority must be clear to all but subject to review and modification as changing circumstances may require. It means that an unusually high level of mutual respect must exist among all on the administrative team. (pp. 195-196)

However, Van Zwoll (1964) made this statement:

> The presence within the organization of needed specialists provides potential for doing better the work to be done. However, the resulting division of authority, even though it may follow lines of competency or specialization, leads toward the kind of confusion which demoralizes workers all along the line and thus decreases efficiency. The availability of expert direction is the strength of the functional staff form of organization. The uncertainty as to where responsibility rests is its chief fault. (p. 22)

Leighbody (1968) concluded that with the rapid growth, bot in numbers and scope, of the vocational program the role of the vocational administrator has become much more comprehensive and more complex.

Gutcher (1968) pointed out the lack of needed information regarding administrative qualities due to the expanding demand for qualified vocational-technical administrators. He suggested that training programs should be based upon knowledge of the characteristics desired by the employers of the administrators. Leighbody (1968) wrote:

> . . . the vocational program in a school system may suffer because the vocational administrator is not accorded an adequate rank in the administrative hierarchy. It is suggested that he needs to function at a level just below the superintendent and should report directly to the superintendent with the rank of assistant superintendent . . . In a rapidly changing world, vocational leadership must be dynamic and forward looking. It must be able to adapt its thinking and its behavior to the constantly changing situations that arise, and, at the same time maintain stability and direction in the program. (pp. 43-45)

Yet another source stated:

> Vocational education is at a point in history where its leadership demands have increased in both quantity and quality. The bold expansion of vocational education programs and the number of people being served has intensified the need for leaders at all levels. To meet these needs it is appropriate to examine the leader's performance requirements and design programs based on these requirements. Unfortunately, little has been accomplished in this direction. (Miller, 1972, p. 3)

The Measurement of Role

At least two procedures could have been used to secure data for analysis of consensus on role definitions. Gross et al. (1958), in discussing the empirical study of role definitions, stated that:

> The first is to focus on the degree of agreement among role definers on which one, or which range of alternatives, among a set of available alternatives the incumbent of a position should adopt in a particular situation. The second is to focus on their consensus on a single evaluative standard that might be applied to him. (p. 101)

In this research the second alternative defined by Gross was chosen. The reason for this decision was operational. It allowed, first, for the investigation of a greater number of role segments or functions. Secondly, since the instrument was to be a mailed questionnaire, it was necessary to keep it as unencumbered and as short as possible in order to insure a high rate of return.

Basic to the measurement of role perception was the distinction between what Gross et al. (1958) described as "intra-position" and "interposition" role consensus. Intraposition role consensus would refer to the degree of agreement of role perception among the RCUDs or among SDVEs; whereas, interposition role consensus would refer to the degree of agreement of role perception between RCUDs and SDVEs. Since these two kinds of role consensus pose quite different methodological problems, their measures are discussed separately.

The measurement of intraposition consensus of role perceptions would be quite easy if all the responses for a particular role

statement fell in one category. However, this is rarely the case in sociological research. Gross et al. (1958) suggested that:

> . . . in the measurement of consensus at least two elements need to be considered: central tendencies and variability of the distribution. To take only one of these into account would be to ignore important information. (pp. 105-106)

For the purpose of this study a continuous series of scores with which to rank the items was needed. This required some sort of score involving deviations about a point of central tendency, and this, in turn, required the assumption of equal distance between the response categories. In essence, the response categories were given numerical weights ranging from "1" for the "no responsibility or involvement" response to "7" for the "provide leadership to accomplish task" response. The mean of the distribution was used as the measure of intraposition consensus. Gross et al. (1958) employed this method in their study of role expectations of school superintendents.

The basic problem for the measurement of interposition consensus of role perceptions was to determine whether a comparison of the responses of the RCUDs and those of SDVEs indicated agreement or disagreement on each role statement. Again, making the assumption of equal intervals between the seven response categories, the analysis of variance was selected as the statistical technique for testing the significance of the difference between means for each of the role statements. This method also was used by Gross et al. (1958).

Another problem inherent in the measurement of role is what Gross et al. (1958) referred to as the "sampling of items" problem. That is, did the selection of role statements on the instrument

represent the total range of conceivable RCU functions? There was no feasible way to demonstrate that the sample of items was drawn from a larger population of role statements. Gross et al. (1958) argued that the holistic conception of role should be abandoned in favor of a "role segments" conception. This was probably the more realistic approach; however, there was an attempt to make the list of role statements as complete as possible. Preliminary drafts of the instrument resulted from an extensive review of available literature and personal experiences of the investigator. Also, the instrument was submitted to a panel of six present and former RCUDs for their reaction. All this, however, still did not guarantee the items to be representative of all possible RCU role functions. However, Stouffer (1950) stated in his discussion of the problem of sampling items:

> Questions are constructed by the research worker. He selects a particular wording of the question, a particular aspect of the content to emphasize, etc., etc. It is not as if there were available a list of all possible questions and their variations from which those used in the study were drawn at random. (p. 286)

CHAPTER III. METHODOLOGY

This chapter presents a description of the procedures used in conducting the study. A specific statement of the problem and a list of the null hypotheses to be tested are followed by a discussion of the instrument and the data collection and analysis procedures.

Specific Statement of the Problem

Specifically, the major problem addressed in this study was, "Is there a difference in the viewpoints of RCUDs and SDVEs regarding the roles and major objectives of RCUs and are these views dependent on the location of the RCU -- outside the SDE, within the SDE responsible to the SDVE, or within the SDE responsible to a position other than the SDVE?"

Corollary statements of the problem were:

1. Is there a difference in the perceived role of the RCU held by RCUDs and SDVEs irrespective of the administrative location of their state's RCU?
2. Is there a difference in the projected role of the RCU held by RCUDs and SDVEs irrespective of the administrative location of their state's RCU?
3. Is there a difference in the RCUD's perceived and projected role for his RCU depending on administrative location of the RCU?
4. Is there a difference in the SDVE's perceived and projected role for his state's RCU depending on administrative location of the RCU?
5. What roles do RCUDs perceive for their state's RCU?
6. What roles do RCUDs project for their state's RCU?
7. What roles do SDVEs perceive for their state's RCU?

8. What roles do SDVEs project for their state's RCU?

9. What do RCUDs and SDVEs see as the major objectives for their state's RCU?

10. Do RCUDs and SDVEs agree on major objectives for their state's RCU?

11. Have RCUDs and SDVEs changed in their perception of the major objectives of RCUs since 1969?

Definition of Terms

Before proceeding with a statement of the null hypotheses to be tested in this study, it was necessary to define several terms given special meaning in the study. The major terms in need of clarification were as follows:

Administrative Location: In this study the term referred to the placement of the RCU in the management control and fiscal structure of the state-administered program of vocational education. Administrative location was subdivided into three categories. Location I included those RCUs located outside the administrative structure of the SDE. Location II included those RCUs located within the administrative structure of the SDE and administratively responsible to the SDVE. Location III included those RCUs located within the administrative structure of the SDE and administratively responsible to a position other than one in the SDVE's chain of command.

Perceived Role: The perceived role of an RCU was a collection of task statements which identified specific working responsibilities of the RCU.

Projected Role: The projected role of an RCU was a collection of task statements which identified specific working responsibilities of the RCU, assuming it could be operated under ideal conditions.

Null Hypotheses

Thirteen null hypotheses were formulated for the study. They are presented below in categories by type of comparison made.

Hypotheses Concerning Perceived Role of RCUs

1. There is no significant difference in a SDVE's perceived role of the RCU by administrative location of the state's RCU.

2. There is no significant difference in a RCUD's perceived role of the RCU by administrative location of the state's RCU.

3. There is no significant difference in the perceived role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located:

    a. Outside the SDE (Location I).
    b. Within the SDE responsible to the SDVE (Location II).
    c. Within the SDE responsible to a position other than the SDVE (Location III).

Hypotheses Concerning Projected Role of RCUs

4. There is no significant difference in a SDVE's projected role of the RCU by administrative location of the state's RCU.

5. There is no significant difference in a RCUD's projected role of the RCU by administrative location of the state's RCU.

6. There is no significant difference in the projected role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located:

    a. Outside the SDE (Location I).
    b. Within the SDE responsible to the SDVE (Location II).
    c. Within the SDE responsible to a position other than the SDVE (Location III).

Hypotheses Comparing Perceived and Projected Roles of RCUs

7. There is no significant difference in a RCUD's perceived and projected role for the RCU when the state's RCU is administratively located:

    a. Outside the SDE (Location I).
    b. Within the SDE responsible to the SDVE (Location II).
    c. Within the SDE responsible to a position other than the SDVE (Location III).

8. There is no significant difference in a SDVE's perceived and projected role for the RCU when the state's RCU is administratively located:

    a. Outside the SDE (Location I).
    b. Within the SDE responsible to the SDVE (Location II).
    c. Within the SDE responsible to a position other than the SDVE (Location III).

Hypotheses Concerning Major Objectives of RCUs

9. There is no significant difference in major objectives assigned to RCUs by RCUDs in the 1969 Goldhammer Study and in the present study.

10. There is no significant difference in major objectives assigned to RCUs by SDVEs in the 1969 Goldhammer Study and in the present study.

11. There is no significant difference in major objectives assigned to the RCU by the RCUD by administrative location of the state's RCU.

12. There is no significant difference in major objectives assigned to the RCU by the SDVE by administrative location of the state's RCU.

13. There is no significant difference in major objectives assigned to the RCU by RCUDs and SDVEs when the state's RCU is administratively located:

    a. Outside the SDE (Location I).
    b. Within the SDE responsible to the SDVE (Location II).
    c. Within the SDE responsible to a position other than the SDVE (Location III).

Design of the Study

The design of this study is typically referred to as ex post facto research. Kerlinger (1967) defined ex post facto research as:

> . . . that research in which the independent variable or variables have already occurred and in which the researcher starts with the observation of a dependent variable or variables. He then studies the independent variables in retrospect for their possible relations to, and effects on, the dependent variable or variables. (p. 360)

Although ex post facto research has weaknesses -- notably, a lack of control of the independent variables, the lack of power to randomize, and the risk of improper interpretation (Kerlinger, 1967) -- it does have several distinct advantages which recommend it highly to the educational and social scientific researcher.

Many of the important variables in educational research do not lend themselves to manipulation. Factors such as intelligence, aptitude, teacher personality, administrative structure, and the like, are impossible to control experimentally. Controlled inquiry is possible, of course, but true experimentation is not. Sociological problems of the educational system, such as extreme deviations in group behavior, institutional role perceptions, and derivitives of administrative policy are mostly ex post facto in nature. Even though these problems do not lend themselves to highly controlled experimental studies there is no reason to discount ex post facto research.

Fox (1969), in discussing the merits of what he described as "descriptive surveys," suggested two conditions which, occurring together, suggest and justify ex post facto research designs: First, that there is an absence of information about many problems of

educational significance; and second, the situations which could generate that information do exist and are accessible to the researcher. Ex post facto research is sometimes referred to as quasi-experimental research (Campbell and Stanley, 1963) or naturalistic research (McCandless, 1967). All three terms refer to instances in which the researcher takes natural settings, already established and functioning, and adds a data collection dimension so that conclusions about the problem can be drawn. Fox (1969) concluded that ". . . whatever it is called, the process whereby the researcher studies existing settings in as formal a way as possible is a fruitful source of information about educational programs and processes" (p. 453).

Suchman (1967), in discussing the ex post facto design, or "nonevaluative research," pointed out that:

> . . . while it [nonevaluative research] may have practical implications, [it] is primarily aimed at increased understanding rather than manipulation or action. A basic research project has as its major objective the search for new knowledge regardless of the value of such knowledge for producing social change. The emphasis is upon studying the interrelationships of variables rather than upon the ability of man to influence these relationships through controlled intervention. (p. 75)

This particular study was suited to the ex post facto design. The independent variable in the study was administrative location of RCUs. The independent variable of administrative location was broken into three categories: RCUs located outside the administrative structure of the SDE (Location I), RCUs located within the SDE and administratively responsible to the SDVE (Location II), and RCUs located within the SDE and not administratively responsible to the SDVE (Location III).

Dependent variables in the study were perceived role of RCUs held by RCUDs and SDVEs, projected role of RCUs held by RCUDs and SDVEs, and major objectives of RCUs as viewed by RCUDs and SDVEs.

The population surveyed in the study was SDVEs in each of the 50 states and RCUDs in each of the 50 states.

Development of the Instrument

The instrument used in this study resulted from reviewing numerous pieces of literature, formal and informal interviews and discussions with various RCUDs, and personal experience in a state RCU. The instrument was composed of four sections, or categories, of questions.

Section I (included on only the RCUD instrument) was designed to collect descriptive data concerning RCUs (Appendix G). It covered the areas of size of RCU staff, funding sources, administrative location, tenure of the RCUD, and distribution of funds between RCU operational costs and the funding of grants and contracts. Section I served primarily to delineate the major independent variables of the study. It was administered only to RCUDs and was omitted from the SDVE instrument (Appendix C).

Section II was designed to elicit opinions of RCUDs and SDVEs as to the major objectives of their state's RCU. The section was extracted from the instrument used by the Goldhammer et al. (1969) study of RCUs. Inclusion of the section in its original form provided a longitudinal description of changes in the focus of RCUs.

Section III was designed to identify the major emphasis areas of the RCUs as seen by RCUDs and SDVEs. The emphasis areas were actually categorical statements that summarized the list of 54 role statements

in Section IV. Respondents indicated the importance of each emphasis area by ranking it on a five-point scale.

Section IV was designed to identify the role of RCUs as the RCUDs and SDVEs thought it was and felt it should be. The role statements were derived from personal experiences, from interviews with RCUDs, and from an intensive review of the works of Huber (1973), Hull et al. (1969), Barker (1971), Goldhammer et al. (1969), the Advisory Council on Vocational Education (1968), and Keppel (1965).

In having RCUDs and SDVEs identify role functions of RCUs, it was felt that simple "yes-no" response categories were not sufficient. RCUs engage in many activities in varying degrees of intensity. A seven-point response scale was developed and is shown in Figure 1.

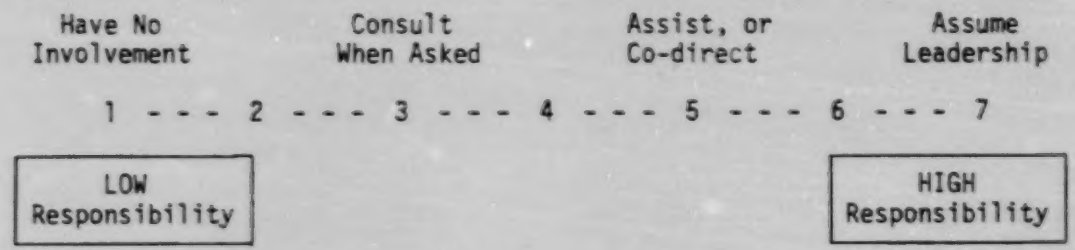
Have No Involvement
Consult When Asked
Assist, or Co-direct
Assume Leadership
1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7
LOW Responsibility
HIGH Responsibility

Figure 1. Response scale for indicating degree of RCU involvement in role functions.

A first draft of the instrument was developed and submitted for review to staff members of both the North Carolina RCUD and the North Carolina SDVE. Their suggestions were incorporated into the second draft of the instrument, which was submitted to the chairman of the author's graduate committee for reaction. The ensuing reactions were incorporated into a third draft of the instrument and submitted to a national advisory committee composed of six present or former RCUDs.

Reactions, criticisms, and suggestions were incorporated into the final version of the instrument. Input from the national advisory committee served greatly to broaden the focus of the instrument. Members of the national advisory committee are listed in Appendix A.

Collection of Data

The instrument, with an accompanying cover letter (Appendices B, F) was mailed to all RCUDs and SDVEs on August 30, 1974. Immediately thereafter, on September 2, 1974, a follow-up postcard (Appendices D, H) was mailed to the RCUDs and SDVEs urging them to respond to the instrument as soon as possible. Two weeks later, on September 13, 1974, a follow-up letter (Appendices E,I) with an additional instrument enclosed was mailed to all non-respondents. During the week of September 23, telephone calls were placed to the few RCUDs and SDVEs who had not responded, encouraging them to complete and mail the questionnaire as soon as possible. This procedure resulted in a response rate of 92.0% for RCUDs and 88.0% for SDVEs. A more precise description of the respondents is presented in Table 4, which summarizes the number of RCUD and SDVE respondents by administrative location of the RCU.

Table 4. Number of RCUDs and SDVEs responding by administrative location of RCU.

Respondent	Location I[a]	Location II[b]	Location III[c]	Overall Response Rate
RCUD	7	25[d]	13	92.0%
SDVE	7	27[d]	10	88.0%

[a] Outside SDE.
[b] Within SDE, administratively responsible to SDVE.
[c] Within SDE, administratively responsible to a position other than SDVE.
[d] Includes three SDVEs who were also RCUDs.

Analysis of Data

The data for this study were collected using primarily forced-choice responses on a mailed survey questionnaire. The data, by nature, were in the form of ordinal measurements. Ordinal data present problems for the social and educational researcher, primarily because it is generally desirable to treat them as, at least, interval measurements. Ordinal measurement requires that the objects of a set can be rank-ordered on an operationally defined characteristic or property, whereas interval measurement, in addition to possessing the characteristics of ordinal measurement, requires that numerically equal distances represent equal distances in the property being measured (Kerlinger, 1967).

Strictly speaking, only statistics of rank-order measures such as the rank-order coefficient of correlation, Kendall's W, and the rank-order analysis of variance, medians, and percentiles can be used to analyze ordinal data. The lack of equal intervals is serious because distances within a scale theoretically cannot be added without interval equality. Kerlinger (1967), however, has strongly argued that since ". . . most psychological scales are basically ordinal, we can with considerable assurance often assume an equality of interval" (p. 426). Kerlinger (1967) argues further that when one has two or three measures of the same variable, and these measures are all substantially and linearly related, then equal intervals can be assumed. This assumption is valid, says Kerlinger (1967), because "the more nearly a relation approaches linearity, the more nearly equal are the intervals of the scales"(p. 427). Kerlinger (1967) cautions, however, that when ordinal

data are treated as interval data, the researcher must exercise extreme care in interpreting data treated in that manner.

Guilford (1954) has also written on the subject. He says that psychologists have rarely hesitated to apply interval statistics to ordinal data. He then adds:

> . . . experimental data often approach the condition of equal units sufficiently well that there is tolerable error in applying the various statistics that call for them. This is one of those occasions for making use of approximations, even gross ones, in order that one may extract the most information from his data. This is often justified on the basis of evidence of the interval consistency of the findings and the validity of the outcomes. This does not excuse the investigator, however, from being on the alert for intolerable approximations and for results and conclusions that are essentially a function of his faulty application of statistics. (pp. 15-16)

The strategy adopted in this study, therefore, was a pragmatic one. Interval equality was assumed to be present in the data.

The data presenting the main methodological problems in analysis were contained in Section IV of the instrument, which dealt with role perceptions. Respondents were presented a series of statements with response scales consisting of discrete numerical values. For the purpose of analysis, points on the scale were assigned numerical values. This procedure, in effect, applied the assumption of interval equality. The 54 role statements were further clustered into 10 categorical areas and mean scores were computed for each respondent for each category (cluster). This procedure reduced the responses to 10 scores for perceived role and 10 scores for projected role for

each respondent. Table 5 summarizes the 54 role statements which were combined to form role categories perceived and projected by the total sample of RCUDs.

Table 5. Statistical summary of statements by RCUDs combined to derive estimates of perceived and projected role of RCUs.

Role Category	Number of Statements	Perceived		Projected	
		Mean	Variance	Mean	Variance
Technical Assistance	4	3.75	2.12	4.52	1.73
RCU Conducted R & E	6	3.37	2.26	4.21	1.88
Dissemination	5	3.90	2.56	5.16	1.16
Curriculum Development	5	3.21	1.75	3.96	1.94
Training Research Personnel	4	2.73	2.86	4.44	2.59
State Plan	4	3.88	2.76	4.34	1.86
Exemplary Project Administration	9	3.87	3.71	4.76	3.30
Research Project Administration	9	5.15	1.80	5.87	.94
Management Information System	6	3.99	4.10	4.55	3.18
Reporting Clearinghouse	2	5.10	3.29	5.40	2.04

The same procedure was followed in deriving perceived and projected role categories for SDVEs. Table 6 summarizes the statements which were combined to form perceived and projected role categories for the total sample of SDVEs.

Table 6. Statistical summary of statements by SDVEs combined to derive estimates of perceived and projected role of RCUs.

Role Category	Number of Statements	Perceived		Projected	
		Mean	Variance	Mean	Variance
Technical Assistance	4	3.71	1.81	4.25	1.76
RCU Conducted R & E	6	2.98	1.21	3.87	1.45
Dissemination	5	3.99	2.80	5.18	1.43
Curriculum Development	5	3.02	1.96	3.84	2.17
Training Research Personnel	4	2.61	2.38	3.97	2.42
State Plan	4	3.60	2.91	3.94	2.45
Exemplary Project Administration	9	3.86	3.01	4.74	2.89
Research Project Administration	9	4.86	2.11	5.60	1.22
Management Information System	6	3.72	1.86	4.61	3.22
Reporting Clearinghouse	2	4.28	3.28	5.03	2.73

The analysis of variance and Student's t for paired variants were the statistical tests used in testing hypotheses concerning interposition congruence of role perceptions as measured by the role categories. For each category the analysis of variance (Snedecor and Cochran, 1967) was applied to test the significance of mean differences between responses of RCUDs in different administrative locations and SDVEs in different administrative locations. In analyses involving the comparison of more than two means the LSD test (Steel and Torrie, 1960) was used to detect significant differences between individual pairs of means when the overall f was significant. Student's t for

paired variants (Snedecor and Cochran, 1967) was used to test for significance of mean differences between responses of RCUDs and SDVEs for each category. In all statistical tests the .05 level was accepted as indicating statistical significance.

The second method of data analysis dealt with analysis of the prioritized objectives selected by RCUDs and SDVEs. On the questionnaire respondents were presented a list of 15 objectives and asked to select the six most important objectives for their state's RCU and rank them in order of importance from one to six by assigning a one to the most important objective, a two to the second most important objective, and so on to the sixth most important objective. Table 7 indicates the number of RCUDs who selected each objective by priority rank.

Table 7. Number of RCUDs selecting each RCU objective by priority rank.

Objective	Priority Rank 1	2	3	4	5	6	Mean Importance Value
1	3	2	4	2	6	8	1.78
2	4	7	5	3	2	2	2.27
3	0	0	1	2	0	1	.24
4	0	2	2	1	1	0	.51
5	4	3	7	4	6	4	2.11
6	1	2	0	1	1	3	.53
7	0	0	1	5	1	4	.56
8	2	2	4	2	1	3	1.09
9	3	1	5	1	0	5	1.13
10	4	6	3	4	4	6	2.04
11	12	7	5	7	3	0	3.42
12	3	2	0	7	2	2	1.33
13	1	1	1	2	9	1	.89
14	4	6	5	2	3	3	1.98
15	2	2	1	2	3	1	.64

Table 8 indicates the number of SDVEs who selected each objective by priority rank. The mean value for each objective is also shown.

Table 8. Number of SDVEs selecting each RCU objective by priority rank.

Objective	Priority Rank 1	2	3	4	5	6	Mean Importance Value
1	5	3	1	6	4	7	2.03
2	5	4	7	4	3	3	2.33
3	0	0	0	0	0	1	.03
4	1	1	1	5	2	4	.83
5	5	4	7	1	6	4	2.43
6	3	2	1	0	0	1	.80
7	0	4	1	4	7	2	1.05
8	1	0	2	3	0	4	.58
9	1	3	3	3	2	0	1.05
10	2	3	4	4	6	5	1.70
11	12	3	5	5	2	2	2.98
12	1	4	0	3	3	1	.98
13	2	2	4	3	2	6	1.05
14	6	9	3	1	3	1	2.43
15	1	1	2	0	1	1	.50

The first step of the analysis was to convert the responses for each of the 15 objectives to score values reflecting their assigned importance by the respondents. In so doing, an objective selected as most important was given a score of six, an objective selected as second most important was given a score of five, an objective selected as third most important was given a score of four, an objective

selected as fourth most important was given a score of three, an objective selected as fifth most important was given a score of two, an objective selected as sixth most important was given a score of one, and an objective not selected in the top six was given a score of zero. These assigned scores for each objective, ranging from zero to six, were used to compute mean importance for each of the 15 objectives. In testing the hypotheses concerning differences between respondent groups in their prioritizing of objectives, the analysis of variance was again used to test for significance of differences between means. Again, the .05 level was accepted as indicating statistical significance.

CHAPTER IV. FINDINGS

This chapter contains three major sections. The first section presents general descriptive data concerning the RCUs. The second section presents findings pertaining to each of the 13 hypotheses grouped by their general area of concern with a brief summary for each area. The third section summarizes the overall findings of the study.

Descriptive Data

Many of the RCUs have been administratively relocated since 1966. Table 9 presents the number of RCUs administratively located outside the SDE and within the SDE during 1966 and 1974.

Table 9. Number and percent of RCUs by administrative location in 1966 and 1974.

	1966		1974	
Location	Number	Percent	Number	Percent
Outside SDE	19	43%	7	14%
Within SDE	25	57%	43	86%
Total	44		50	

The 44 RCUs in operation during 1966 were about evenly divided between being administratively located within and outside the SDE. However, by 1974 a large majority (86%) of the RCUs were administratively within the SDE. In addition, RCUs have organized themselves differently depending on administrative location of the Unit. Table 10 describes the staffing arrangements of RCUs by administrative location.

Table 10. Descriptive summary of RCUs by administrative location.

Variable	Location I[a]	Location II[b]	Location III[c]	Total
Mean number of full-time staff	5.1	3.4	3.2	3.6
Mean number of full-time equivalent staff	7.5	3.9	3.6	4.4
Mean RCUD tenure (years)	4.3	2.8	3.3	3.2

[a]Outside SDE.
[b]Within SDE, administratively responsible to SDVE.
[c]Within SDE, administratively responsible to a position other than SDVE.

RCUs averaged 3.6 full-time staff members. RCUs within the SDE, both those administratively responsible to the SDVE and those administratively responsible to a position other than the SDVE, had about equal numbers of full-time staff (3.4 and 3.2, respectively) while RCUs located outside the SDE had, on the average, larger numbers of full-time staff positions. Full-time equivalent staff figures revealed the same general profile. Location I RCUs averaged 7.5 full-time equivalent staff members while those in Locations II and III averaged 3.9 and 3.6, respectively. RCUD tenure patterns were also different by administrative location of the RCU. The data revealed that RCUDs outside the SDE had an average tenure of 4.3 years while those within the SDE in Locations II and III had average tenures of 2.8 and 3.3 years, respectively.

Table 11 describes funding sources utilized by RCUs by administrative location.

Table 11. Percent of RCUs utilizing various funding sources by administrative location.

Funding Source	Location I[a]	Location II[b]	Location III[c]	Total
1968 VEA, Part C (131b)	100%	100%	100%	100%
1968 VEA, Part D (142d)	57%	58%	46%	55%
EPDA, Section 552	70%	8%	8%	18%
EPDA, Section 553	70%	16%	8%	23%

[a] Outside SDE.
[b] Within SDE, administratively responsible to SDVE.
[c] Within SDE, administratively responsible to a position other than SDVE.

As expected, all RCUs reported they administered the state's share of Part C research funds of P. L. 90-576. In addition, an average 55% of those responding indicated they administered the state's share of Part D exemplary funds of P. L. 90-576. A slightly lower percentage (46%) of RCUs in Location III indicated they administered Part D funds as compared with RCUs in Locations I and II (57% and 58%, respectively).

EPDA, Section 552, was administered predominately by RCUs in Location I. Seventy percent of those RCUs indicated they administered 552 funds while 8% of the RCUs in Locations II and III indicated administrative involvement. EPDA, Section 553, followed the same pattern. These funds were administered by 70% of the RCUs in Location I, 16% of the RCUs in Location II, and 8% of the RCUs in Location III.

Findings Concerning Perceived Role of RCUs

The study contrasted perceived roles of RCUs held by RCUDs and SDVEs among the three administrative locations and within each administrative location it compared perceived roles held by RCUDs to perceived roles held by SDVEs. Hypotheses 1-3 described such comparisons.

> Hypothesis 1: There is no significant difference in a SDVE's perceived role of the RCU by administrative location of the state's RCU.

The data to test Hypothesis 1 are contained in Table 12, which presents mean perceived role of RCUs by each role category and by administrative location for SDVEs.

Table 12. Mean perceived role of RCUs by SDVEs by administrative location of RCU.

Role Category	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
Technical Assistance	4.79	3.67	3.15	3.71	3.13
RCU Conducted R & E	3.47	2.93	2.82	2.98	.72
Dissemination	5.30	3.73	3.84	3.99	2.33
Curriculum Development	3.40	3.17	2.44	3.02	1.22
Training Research Personnel	3.83	2.35	2.48	2.61	2.41
State Plan	3.13[d]	4.41[d]	1.95[d]	3.60	11.82**
Exemplary Project Administration	3.11	4.27	3.31	3.86	1.81
Research Project Administration	4.35	5.09	4.60	4.86	.83
Management Information System	4.39	3.85	3.00	3.72	1.22
Reporting Clearinghouse	4.42	4.48	3.70	4.28	.66
Number in Group	6	24	10		

[a]Outside SDE.
[b]Within SDE, administratively responsible to SDVE.
[c]Within SDE, administratively responsible to a position other than SDVE.
**Significant at .01 level by analysis of variance.
[d]Location II > Location I > Location III at .05 level by LSD.

SDVEs' perceived role of RCUs could have ranged from "1," indicating little responsibility, to "7," indicating great responsibility. The data in Table 12 revealed that SDVEs perceived research project administration to be the greatest responsibility of RCUs and training research personnel to be the least responsibility of RCUs. SDVEs were consistent in their perceived role of RCUs across all three administrative locations with the exception of the state plan category. SDVEs in Location II assigned significantly higher RCU responsibility to the state plan category than did SDVEs in Location I who, in turn, assigned significantly higher RCU responsibility to the category than SDVEs in Location III. Consequently, the data failed to reject Hypothesis 1 for nine of the role categories. However, Hypothesis 1 was rejected for the state plan category indicating, for that category, that SDVEs did perceive different roles for RCUs in the different administrative locations.

> Hypothesis 2: There is no significant difference in a RCUD's perceived role of the RCU by administrative location of the state's RCU.

RCUDs were also asked to indicate their perceived role of their RCUs. The data are summarized in Table 13, which presents mean perceived role of RCUs by each role category and by administrative location for RCUDs.

Table 13. Mean perceived role of RCUs by RCUDs by administrative location of RCU.

Role Category	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
Technical Assistance	5.14[d]	3.57[d]	3.33[d]	3.75	4.65*
RCU Conducted R & E	3.67	3.29	3.36	3.37	.16
Dissemination	4.66	3.60	4.03	3.90	1.25
Curriculum Development	3.57	3.27	2.92	3.21	.58
Training Research Personnel	4.89[e]	2.26[e]	2.38[e]	2.73	9.76**
State Plan	3.21	4.37	3.38	3.88	2.27
Exemplary Project Administration	2.71	4.26	3.81	3.87	1.81
Research Project Administration	4.63	5.27	5.21	5.15	.60
Management Information System	4.62	3.64	4.26	3.99	.78
Reporting Clearinghouse	4.64	5.41	4.81	5.10	.72
Number in Group	7	23	13		

[a]Outside SDE.
[b]Within SDE, administratively responsible to SDVE.
[c]Within SDE, administratively responsible to a position other than SDVE.
*Significant at .05 level by analysis of variance.
**Significant at .01 level by analysis of variance.
[d]Location I > Location II = Location III at .05 level by LSD.
[e]Location I > Location III = Location II at .05 level by LSD.

The data in Table 13 revealed that RCUDs, like SDVEs, perceived research project administration to be their category of greatest role

responsibility and training research personnel to be their least role responsibility. There were no significant differences among RCUDs' mean perceived roles for eight of the ten categories, whereas the differences between the means across administrative locations for the two categories of technical assistance and training research personnel were significantly different. RCUDs in Location I perceived their technical assistance role as being significantly greater than did RCUDs in either Location II or Location III. A similar pattern existed for the category of training research personnel. RCUDs in Location I perceived their role in training research personnel as being significantly greater than did RCUDs in either Location II or Location III. Therefore, the data failed to reject Hypothesis 2 for eight of the role categories and rejected Hypothesis 2 for the categories of technical assistance and training research personnel. RCUDs from different administrative locations did perceive different role responsibilities for the categories of technical assistance and training research personnel.

> Hypothesis 3a: There is no significant difference in the perceived role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located outside the SDE (Location I).

Table 14 presents data which contrasted the role responsibilities of RCUs as perceived by RCUDs and SDVEs whose RCUs were administratively located outside the SDE.

Table 14. Mean perceived role by RCUDs and SDVEs for RCUs administratively located outside the SDE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	6	5.50	4.79	1.05
RCU Conducted R & E	6	3.81	3.47	.63
Dissemination	6	4.63	5.30	1.57
Curriculum Development	6	3.57	3.40	.49
Training Research Personnel	6	5.13	3.83	1.50
State Plan	6	3.21	3.13	.21
Exemplary Project Administration	6	2.61	3.11	1.15
Research Project Administration	6	4.44	4.35	.19
Management Information System	6	4.78	4.39	.69
Reporting Clearinghouse	6	4.83	4.42	.68

Within Location I RCUDs perceived technical assistance to be their greatest role responsibility and exemplary project administration to be their smallest role responsibility. SDVEs perceived dissemination to be the greatest role responsibility of RCUs and exemplary project administration to be their least role responsibility. There were no significant differences between mean perceived roles held by RCUDs and SDVEs within Location I; therefore, the data failed to reject Hypothesis 3a. In essence, RCUDs and SDVEs outside the SDE agreed on the role responsibilities perceived for RCUs.

> Hypothesis 3b: There is no significant difference in the perceived role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to the SDVE (Location II).

Table 15 presents data which contrasted role responsibilities of RCUs as perceived by RCUDs and SDVEs whose RCUs were administratively located within the SDE responsible to the SDVE.

Table 15. Mean perceived role by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to the SDVE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	22	3.44	3.52	.34
RCU Conducted R & E	22	3.20	2.86	1.53
Dissemination	22	3.55	3.74	.68
Curriculum Development	22	3.26	3.07	.73
Training Research Personnel	22	2.14	2.32	.63
State Plan	22	4.41	4.28	.68
Exemplary Project Administration	22	4.16	4.26	.39
Research Project Administration	22	5.21	5.12	.34
Management Information System	22	3.55	3.77	.62
Reporting Clearinghouse	22	5.34	4.43	2.29*

*Significant at .05 level by Student's t for paired variants.

Within Location II, RCUDs perceived reporting clearinghouse to be their greatest role responsibility and training research personnel to be their smallest role responsibility. SDVEs perceived research project administration to be the greatest role responsibility and training research personnel to be the smallest role responsibility of RCUs. No significant differences between perceived roles held by RCUDs and SDVEs were detected for nine of the categories; however, for the category of reporting clearinghouse, RCUDs did perceive

significantly greater role responsibility for RCUs than did SDVEs. Consequently, the data failed to reject Hypothesis 3b for nine of the categories and rejected Hypothesis 3b for the category of reporting clearinghouse, indicating for that category that RCUDs and SDVEs did perceive significantly different role responsibilities for RCUs in Location II.

> Hypothesis 3c: There is no significant difference in the perceived role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to a position other than the SDVE (Location III).

Table 16 presents data which contrasted role responsibilities of RCUs as perceived by RCUDs and SDVEs whose RCUs were administratively located within the SDE responsible to a position other than the SDVE.

Table 16. Mean perceived role by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to a position other than the SDVE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	10	3.38	3.15	.75
RCU Conducted R & E	10	3.03	2.82	.60
Dissemination	10	3.58	3.84	.63
Curriculum Development	10	2.76	2.44	.52
Training Research Personnel	10	2.38	2.48	.14
State Plan	10	2.75	1.96	2.39*
Exemplary Project Administration	10	3.31	3.31	.00
Research Project Administration	10	5.12	4.60	1.34
Management Information System	10	4.03	3.00	2.39*
Reporting Clearinghouse	10	4.70	3.70	1.68

*Significant at .05 level by Student's t for paired variants.

Both RCUDs and SDVEs perceived research project administration to be the greatest role responsibility of RCUs in Location III. However, RCUDs perceived training research personnel to be their smallest role responsibility while SDVEs perceived the category of state plan to be the smallest role responsibility of RCUs in Location III. Significant differences between mean perceived role responsibilities were detected for two categories - state plan and management information system. RCUDs perceived significantly greater role responsibility for the state plan category and for the management information system category. Consequently, the data failed to reject Hypothesis 3c for eight of the categories and rejected Hypothesis 3c for the categories of state plan and management information system for RCUs in Location III.

In summary, the data have shown there was general agreement on perceived role of RCUs both by RCUDs and SDVEs across the three administrative locations and between RCUDs and SDVEs within each of the three administrative locations.

Findings Concerning Projected Role of RCUs

The study also asked RCUDs and SDVEs to project what they felt should be the ideal role of RCUs. Hypotheses 4-6 dealt with comparing the role responsibilities for RCUs projected by RCUDs and SDVEs both across and within the different administrative locations.

> Hypothesis 4: There is no significant difference in a SDVE's projected role of the RCU by administrative location of the state's RCU.

Table 17 presents data that compared mean projected roles for RCUs by SDVEs in each of the three administrative locations.

Table 17. Mean projected role of RCUs by SDVEs by administrative location of RCU.

Role Category	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
Technical Assistance	4.71	4.31	3.83	4.25	.89
RCU Conducted R & E	3.89	4.00	3.56	3.87	.48
Dissemination	5.53	4.93	5.54	4.18	1.24
Curriculum Development	3.60	4.09	3.38	3.84	.91
Training Research Personnel	4.50	3.70	4.30	3.97	.94
State Plan	3.42[d]	4.57[d]	2.75[d]	3.94	6.72*
Exemplary Project Administration	3.33[e]	5.21[e]	4.43[e]	4.74	3.55*
Research Project Administration	4.69[d]	5.88[d]	4.48[d]	5.60	3.24*
Management Information System	4.69	4.69	4.37	4.61	.12
Reporting Clearinghouse	5.17	4.92	5.20	5.03	.12
Number in Group	6	24	10		

[a] Outside SDE.
[b] Within SDE, administratively responsible to SDVE.
[c] Within SDE, administratively responsible to a position other than SDVE.
*Significant at .05 level by analysis of variance.
**Significant at .01 level by analysis of variance.
[d] Location II > Location I = Location III at .05 level by LSD.
[e] Location II = Location III > Location I at .05 level by LSD.

Overall, SDVEs projected research project administration as the category of greatest role responsibility and curriculum development

as the category of least role responsibility. However, they also projected RCU conducted research and evaluation as a category of little role responsibility for RCUs. Significant differences in mean projected role responsibilities were detected for three categories -- state plan, exemplary project administration, and research project administration. SDVEs in Location II projected significantly greater role responsibilities in the category of state plan for RCUs than did those in either Location I or Location III. Those in Locations II and III also projected significantly greater role responsibilities in the category of exemplary project administration for RCUs than did those in Location I. Significantly greater role responsibilities for RCUs in the category of research project administration were projected by SDVEs in Location II than in Location I. Consequently, the data failed to reject Hypothesis 4 for seven of the categories but did reject Hypothesis 4 for the categories of state plan, exemplary project administration, and research project administration.

> Hypothesis 5: There is no significant difference in a RCUD's projected role of the RCU by administrative location of the state's RCU.

RCUDs were also asked to project the ideal amounts of role responsibility for their RCU. Table 18 presents data that compared their mean responses by administrative location for each of the role categories.

Table 18. Mean projected role of RCUs by RCUDs by administrative location of RCU.

Role Category	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
Technical Assistance	5.39	4.43	4.21	4.52	2.04
RCU Conducted R & E	4.24	4.30	4.04	4.21	.15
Dissemination	5.43	5.02	5.28	5.16	.48
Curriculum Development	3.94	4.06	3.78	3.96	.16
Training Research Personnel	5.11	4.23	4.44	4.44	.79
State Plan	3.46	4.67	4.21	4.34	2.33
Exemplary Project Administration	3.67	5.11	4.72	4.76	1.76
Research Project Administration	5.32	6.05	5.86	4.87	1.56
Management Information System	4.31	4.67	4.47	4.55	.13
Reporting Clearinghouse	4.64	5.37	5.85	5.40	1.67
Number in Group	7	23	13		

[a] Outside SDE.
[b] Within SDE, administratively responsible to SDVE.
[c] Within SDE, administratively responsible to a position other than SDVE.

RCUDs projected dissemination, research project administration, and reporting clearinghouse as their greatest role responsibilities and curriculum development as their smallest responsibility. No significant differences were detected among different administrative

locations; therefore, the data failed to reject Hypothesis 5 for any of the categories. Essentially, RCUDs projected comparable role responsibilities for RCUs regardless of administrative location of the RCU.

> Hypothesis 6a: There is no significant difference in the projected role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located outside the SDE (Location I).

Table 19 presents the results of comparing projected roles of RCUs by RCUDs and SDVEs whose RCUs were administratively located outside the SDE.

Table 19. Mean projected role by RCUDs and SDVEs for RCUs administratively located outside the SDE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	6	5.79	4.71	1.45
RCU Conducted R & E	6	4.47	3.89	.84
Dissemination	6	5.40	5.53	.47
Curriculum Development	6	4.00	3.60	1.02
Training Research Personnel	6	5.38	4.50	.92
State Plan	6	3.50	3.42	.18
Exemplary Project Administration	6	3.69	3.33	.48
Research Project Administration	6	5.24	4.69	1.75
Management Information System	6	4.42	4.69	.32
Reporting Clearinghouse	6	4.75	5.17	.36

Within Location I RCUDs and SDVEs projected comparable degrees of role responsibilities for RCUs. RCUDs projected great role

responsibility for technical assistance and training research personnel and small role responsibility for state plan and exemplary project administration. SDVEs, on the other hand, projected great responsibility for dissemination and reporting clearinghouse and little responsibility for the same categories as the RCUDs did -- state plan and exemplary project administration. However, there were no significant differences in mean projected role responsibilities by RCUDs and SDVEs for any of the role categories; therefore, the data failed to reject Hypothesis 6a. In essence, RCUDs and SDVEs in Location I projected comparable role responsibilities for RCUs.

> Hypothesis 6b: There is no significant difference in the projected role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to the SDVE (Location II).

Table 20 summarizes the comparison of projected role responsibilities by RCUDs and SDVEs whose RCU was administratively located within the SDE responsible to the SDVE.

Table 20. Mean projected role by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to the SDVE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	22	4.36	4.22	.51
RCU Conducted R & E	22	4.23	3.95	1.07
Dissemination	22	4.98	5.01	.10
Curriculum Development	22	4.09	4.01	.22
Training Research Personnel	22	4.15	3.78	1.05
State Plan	22	4.73	4.47	1.02
Exemplary Project Administration	22	5.03	5.25	.62
Research Project Administration	22	6.01	5.96	.32
Management Information System	22	4.63	4.68	.14
Reporting Clearinghouse	22	5.30	4.91	1.03

Within Location II RCUDs and SDVEs projected comparable role responsibilities for RCUs. RCUDs and SDVEs both projected research project administration as the greatest role responsibility for RCUs while RCUDs projected curriculum development and SDVEs projected training research personnel as the categories of least responsibility for RCUs. However, since no significant differences were detected between mean role responsibilities as projected by RCUDs and SDVEs, the data failed to reject Hypothesis 6b. In essence, RCUDs and SDVEs projected the same amounts of role responsibility for RCUs in Location II.

> Hypothesis 6c: There is no significant difference in the projected role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to a position other than the SDVE (Location III).

Table 21 presents data that compared projected role responsibilities for RCUs by RCUDs and SDVEs in Location III.

Table 21. Mean projected role by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to a position other than the SDVE.

Role Category	n	RCUD	SDVE	t
Technical Assistance	10	4.30	3.83	1.28
RCU Conducted R & E	10	3.77	3.55	.67
Dissemination	10	5.10	5.54	.89
Curriculum Development	10	3.58	3.38	.27
Training Research Personnel	10	4.30	4.30	.00
State Plan	10	3.55	2.75	2.53*
Exemplary Project Administration	10	4.42	4.43	.02
Research Project Administration	10	5.88	5.48	2.14
Management Information System	10	4.27	4.37	.14
Reporting Clearinghouse	10	5.55	5.20	.72

*Significant at .05 level by Student's t for paired variants.

Within Location III, RCUDs projected the greatest responsibility for RCUs to be research project administration while SDVEs projected the greatest role responsibility for RCUs to be dissemination. Both RCUDs and SDVEs projected state plan as the smallest RCU responsibility. Analysis of the data detected a significant difference in the mean projected role responsibility for one category -- state plan. RCUDs projected a significantly greater RCU role responsibility for the state plan category than the SDVEs did. Therefore, Hypothesis 6c was rejected for the state plan category. The data failed to reject Hypothesis 6c on the other nine categories.

In summary, the data showed that RCUDs and SDVEs within similar administrative locations were in general agreement on projected role responsibilities for RCUs. In addition RCUDs and SDVEs appeared to project comparable RCU role responsibilities across the three administrative locations.

Findings Comparing Perceived and Projected Roles of RCUs

Another aspect of the study compared perceived and projected roles of RCUs held by RCUDs and SDVEs. Hypothesis 7 dealt with perceived and projected RCU roles held by RCUDs and Hypothesis 8 examined perceived and projected RCU roles held by SDVEs. In both instances responses were analyzed within each of the three administrative locations.

> Hypothesis 7a: There is no significant difference in a RCUD's perceived and projected role for the RCU when the state's RCU is administratively located outside the SDE (Location I).

Table 22 presents data that compared Location I RCUDs' perceived and projected RCU role responsibilities.

Table 22. Mean perceived and projected role by RCUDs for RCUs administratively located outside the SDE.

Role Category	n	Perceived	Projected	t
Technical Assistance	7	5.14	5.39	.79
RCU Conducted R & E	7	3.67	4.24	1.91
Dissemination	7	4.66	5.43	3.82**
Curriculum Development	7	3.57	3.94	2.24
Training Research Personnel	7	4.89	5.11	1.00
State Plan	7	3.21	3.46	1.53
Exemplary Project Administration	7	2.71	3.67	1.57
Research Project Administration	7	4.63	5.32	1.95
Management Information System	7	4.62	4.31	1.41
Reporting Clearinghouse	7	4.64	4.64	.00

**Significant at .01 level by Student's t for paired variants.

Data in Table 22 showed that RCUDs in Location I perceived and projected approximately equal degrees of RCU responsibility with the exception of dissemination. RCUDs projected significantly greater RCU responsibility for the dissemination category; consequently, Hypothesis 7a was rejected for that category. The data failed to reject Hypothesis 7a for the other nine categories. In general, RCUDs in Location I projected no change in RCU responsibility.

Hypothesis 7b: There is no significant difference in a RCUD's perceived and projected role for the RCU when the state's RCU is administratively located within the SDE responsible to the SDVE (Location II).

Data are presented in Table 23 which compared RCUDs' perceived and projected degrees of RCU role responsibility for those RCUs in Location II.

Table 23. Mean perceived and projected role by RCUDs for RCUs located within the SDE, administratively responsible to the SDVE.

Role Category	n	Perceived	Projected	t
Technical Assistance	23	3.57	4.43	4.24**
RCU Conducted R & E	23	3.29	4.30	4.76**
Dissemination	23	3.60	5.02	5.24**
Curriculum Development	23	3.27	4.06	3.69**
Training Research Personnel	23	2.26	4.23	5.67**
State Plan	23	4.37	4.67	1.59
Exemplary Project Administration	23	4.26	5.11	3.36**
Research Project Administration	23	5.27	6.05	5.34**
Management Information System	23	3.64	4.67	2.41*
Reporting Clearinghouse	23	5.41	5.37	.19

*Significant at .05 level by Student's t for paired variants.
**Significant at .01 level by Student's t for paired variants.

Unlike RCUDs in Location I, RCUDs in Location II projected generally greater RCU role responsibility than they perceived was actually occurring. In fact, significantly higher means were detected for projected RCU responsibilities for eight of the role categories. Subsequently, Hypothesis 7b was rejected for eight role categories. The data failed to reject Hypothesis 7b for two role categories -- state plan and reporting clearinghouse.

Hypothesis 7c: There is no significant difference in a RCUD's perceived and projected role for the RCU when the state's RCU is administratively located within the SDE responsible to a position other than the SDVE (Location III).

Perceived and projected amounts of RCU role responsibility as reported by RCUDs in Location III were compared for each of the role categories. The results are presented in Table 24.

Table 24. Mean perceived and projected role by RCUDs for RCUs located within the SDE, administratively responsible to a position other than the SDVE.

Role Category	n	Perceived	Projected	t
Technical Assistance	13	3.33	4.21	4.05**
RCU Conducted R & E	13	3.36	4.04	3.43**
Dissemination	13	4.03	5.28	3.91**
Curriculum Development	13	2.92	3.78	4.32**
Training Research Personnel	13	2.38	4.44	6.83**
State Plan	13	3.38	4.21	3.61**
Exemplary Project Administration	13	3.81	4.72	3.10**
Research Project Administration	13	5.21	5.86	2.57*
Management Information System	13	4.26	4.47	.61
Reporting Clearinghouse	13	4.81	5.85	2.58*

*Significant at .05 level by Student's t for paired variants.
**Significant at .01 level by Student's t for paired variants.

In a pattern similar to RCUDs in Location II, RCUDs in Location III projected greater RCU role responsibility on nine of the 10 role categories than they perceived was actually occurring. Significantly higher projected means were detected for nine role categories;

therefore, Hypothesis 7c was rejected for those nine categories. The data failed to reject Hypothesis 7c for the category of management information system.

> Hypothesis 8a: There is no significant difference in a SDVE's perceived and projected role for the RCU when the state's RCU is administratively located outside the SDE (Location I).

Perceived and projected role responsibilities held by SDVEs in Location I were compared. The results are presented in Table 25.

Table 25. Mean perceived and projected role by SDVEs for RCUs administratively located outside the SDE.

Role Category	n	Perceived	Projected	t
Technical Assistance	6	4.79	4.71	.79
RCU Conducted R & E	6	3.47	3.89	2.03
Dissemination	6	5.30	5.53	1.56
Curriculum Development	6	3.40	3.60	1.58
Training Research Personnel	6	3.83	4.50	1.30
State Plan	6	3.13	3.42	1.19
Exemplary Project Administration	6	3.11	3.33	1.27
Research Project Administration	6	4.35	4.69	2.05
Management Information System	6	4.39	4.69	.68
Reporting Clearinghouse	6	4.42	5.17	1.00

The data in Table 25 showed that SDVEs perceived and projected approximately equal degrees of RCU role responsibility for RCUs in Location I. In fact, no significant differences were detected between mean perceived RCU responsibilities and mean projected responsibilities

for any of the role categories. The data failed to reject Hypothesis 8a for any of the role categories.

> Hypothesis 8b: There is no significant difference in a SDWE's perceived and projected role for the RCU when the state's RCU is administratively located within the SDE responsible to the SDWE (Location II).

Data were analyzed which compared RCU roles as perceived and projected by SDWEs whose RCUs were in Location II. The results are presented in Table 26.

Table 26. Mean perceived and projected role by SDWEs for RCUs located within the SDE, administratively responsible to the SDWE.

Role Category	n	Perceived	Projected	t
Technical Assistance	24	3.67	4.31	3.97**
RCU Conducted R & E	24	2.93	4.00	5.60**
Dissemination	24	3.73	4.93	5.00**
Curriculum Development	24	3.17	4.09	4.57**
Training Res[illegible]r[illegible] Personnel	24	2.35	3.70	4.06**
State Plan	24	4.41	4.57	.88
Exemplary Project Administration	24	4.27	5.21	4.04**
Research Project Administration	24	5.09	5.88	3.94**
Management Information System	24	3.85	4.69	3.15**
Reporting Clearinghouse	24	4.48	4.92	2.01

**Significant at .01 level by Student's t for paired variants.

SDWEs projected greater amounts of RCU role responsibility for RCUs in Location II than they perceived. Significantly higher means

of RCU role responsibility were projected by SDVEs for eight role categories for RCUs in Location II. Therefore, Hypothesis 8b was rejected for the eight role categories. The data failed to reject Hypothesis 8b for the categories of state plan and reporting clearinghouse.

> Hypothesis 8c: There is no significant difference in a SDVE's perceived and projected role for the RCU when the state's RCU is administratively located within the SDE responsible to a position other than the SDVE (Location III).

Data were analyzed to compare perceived and projected degrees of RCU role responsibility by SDVEs whose RCU was in Location III. The results are presented in Table 27.

Table 27. Mean perceived and projected role by SDVEs for RCUs located within the SDE, administratively responsible to a position other than the SDVE.

Role Category	n	Perceived	Projected	t
Technical Assistance	10	3.15	3.83	3.69**
RCU Conducted R & E	10	2.82	3.66	2.34*
Dissemination	10	3.84	5.64	3.74**
Curriculum Development	10	2.44	3.38	3.22*
Training Research Personnel	10	2.48	4.30	5.13**
State Plan	10	1.95	2.75	3.47**
Exemplary Project Administration	10	3.31	4.43	3.96**
Research Project Administration	10	4.60	5.46	2.90*
Management Information System	10	3.00	4.37	4.07**
Reporting Clearinghouse	10	3.70	5.20	2.90*

*Significant at .05 level by Student's t for paired variants.
**Significant at .01 level by Student's t for paired variants.

In a pattern similar to SDVEs in Location II, SDVEs in Location III projected greater RCU role responsibilities than they perceived were actually occurring. Significantly higher projected RCU role responsibility means were evident for all 10 role categories. Hypothesis 8c was rejected for all 10 role categories.

In summary, it appeared that RCUDs and SDVEs were in agreement as to their perceived and projected RCU role responsibilities. There was generally no difference in their perceived and projected role of RCUs in Location I, whereas both the RCUDs and the SDVEs projected greater role responsibility for RCUs in Location II and Location III than they perceived.

Findings Concerning Major Objectives of RCUs

Major objectives of RCUs were studied in three respects. First, they were analyzed to determine if importance currently assigned them by RCUDs and SDVEs was different from the importance assigned them by RCUDs and SDVEs five years prior, in 1969. Secondly, major objectives were studied to determine if RCUDs and SDVEs assigned them different degrees of importance depending on administrative location of the state's RCU. And thirdly, major objectives were studied to determine if RCUDs and SDVEs within similar administrative locations assigned different degrees of importance to them. Hypotheses 9-13 were based on these questions.

> Hypothesis 9: There is no significant difference in major objectives assigned to RCUs by RCUDs in the 1969 Goldhammer Study and in the present study.

Data which compared major objectives assigned to RCUs by RCUDs in 1969 and 1974 were analyzed in order to test Hypothesis 9. The results are presented in Table 28.

Table 28. Mean importance assigned to RCU objectives by RCUDs in 1969 and 1974.

Objective	1969	1974	f-ratio
1. To disseminate information on progress and application of occupational research.	3.10	1.78	8.61**
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	1.74	2.27	1.15
3. To create change in the administration of local vocational education programs.	.59	.24	1.76
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	.85	.51	1.04
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	2.05	2.11	.02
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.54	.53	.00
7. To identify and maintain an inventory of available occupational research and development resources in the state.	.92	.56	1.52
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	1.23	1.09	.13

(Continued)

Table 28. (Continued)

Objective	1969	1974	f-ratio
9. To serve as a statistical research reporting service for the state department of education.	.46	1.13	3.41
10. To review and monitor occupational research and development projects.	.87	2.04	7.79**
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	3.44	3.42	.00
12. To conduct occupational research and development projects.	1.15	1.33	.17
13. To initiate research projects through involvement of RCU staff in proposal-writing.	.92	.89	.01
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.44	1.98	1.17
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.13	.64	3.91*
Number in Group	39	45	

*Significant at .05 level by analysis of variance.
**Significant at .01 level by analysis of variance.

RCUDs in 1974 assigned approximately the same importance to major objectives as RCUDs did in 1969. A small change did occur, however. In 1969 RCUDs assigned greatest importance to objectives 1, 5, and 11; whereas in 1974, RCUDs assigned greatest importance to objectives 2, 5, and 11. In essence, RCUDs in 1974 saw manpower data analysis, coordination of in-state research, and stimulation and encouragement of research as top priorities for RCUs. In 1969 RCUDs assigned least importance to objectives 6, 9, and 15; whereas in 1974, RCUDs assigned least importance to objectives 3, 4, and 6.

Significant differences were detected between the means of 1969 and 1974 for three of the objectives. In 1974, RCUDs assigned significantly higher importance to objectives 10, concerning reviewing and monitoring projects, and 15, concerning identifying issues and problems, than in 1969 and significantly less importance to objective 1, concerning dissemination. Consequently, Hypothesis 9 was rejected for objectives 1, 10, and 15. The data failed to reject Hypothesis 9 for all other objectives.

> Hypothesis 10: There is no significant difference in major objectives assigned to RCUs by SDVEs in the 1969 Goldhammer Study and in the present study.

In addition to data describing major objectives assigned to RCUs by RCUDs, data were also analyzed which compared importance assigned major objectives by SDVEs in 1969 and 1974. Those data are presented in Table 29.

Table 29. Mean importance assigned to RCU objectives by SDVEs in 1969 and 1974.

Objective	1969	1974	f-ratio
1. To disseminate information on progress and application of occupational research.	2.31	2.03	.32
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	2.03	2.33	.32
3. To create change in the administration of local vocational education programs.	.22	.03	2.84
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	2.19	.83	9.83*
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	.94	2.43	10.19*
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.08	.80	4.58*
7. To identify and maintain an inventory of available occupational research and development resources in the state.	1.17	1.05	.09
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	1.03	.53	1.70

(Continued)

Table 29. (Continued)

Objective	1969	1974	f-ratio
9. To serve as a statistical research reporting service for the state department of education.	.33	1.05	3.87
10. To review and monitor occupational research and development projects.	1.14	1.70	1.58
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	3.25	2.98	.25
12. To conduct occupational research and development projects.	1.89	.98	3.98*
13. To initiate research projects through involvement of RCU staff in proposal-writing.	1.06	1.05	.00
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.25	2.43	5.28*
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.72	.50	.40
Number in Group	36	40	

*Significant at .05 level by analysis of variance.

Slightly more change had occurred in importance assigned major objectives by SDVEs than by RCUDs. Whereas in 1969, SDVEs assigned greatest importance to objectives 1, 4, and 11, in 1974 they assigned greatest importance to objectives 5, 11, and 14. And, whereas in 1969, SDVEs assigned least importance to objectives 3, 6, and 9, in 1974 they assigned least importance to objectives 3, 8, and 15. In addition, significantly different mean importance was assigned five objectives by the SDVEs in 1969 and 1974. In 1974, SDVEs assigned significantly greater importance to objectives 5 (coordination of in-state research), 6 (reporting clearinghouse), and 14 (determination of research needed), and significantly less importance to objectives 4 (coordination of in-state and out-of-state research), and 12 (conduct projects). Consequently, Hypothesis 10 was rejected for objectives 4, 5, 6, 12, and 14. The data failed to reject Hypothesis 10 for all other objectives.

Hypothesis 11: There is no significant difference in major objectives assigned to the RCU by the RCUD by administrative location of the state's RCU.

Assignment of major objectives to RCUs by RCUDs was also analyzed by administrative location of the state's RCU. Results of the analysis are presented in Table 30.

Table 30. Mean importance assigned to RCU objectives by RCUDs by administrative location of RCU.

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
1. To disseminate information on progress and application of occupational research.	3.57[d]	1.52[d]	1.31[d]	1.78	3.72*
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	1.57	2.20	2.77	2.27	.62
3. To create change in the administration of local vocational education programs.	.00	.28	.31	.24	.01
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	1.29[e]	.56[e]	.00[e]	.51	1.14[e]
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	2.57	1.56	2.92	2.11	2.10
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.00	.64	.62	.53	.00

(Continued)

Table 30. (Continued)

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
7. To identify and maintain an inventory of available occupational research and development resources in the state.	1.29[f]	.64[f]	.00[f]	.56	1.45[f]
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	.00[d]	1.16[d]	1.54[d]	1.09	.30[d]
9. To serve as a statistical research reporting service for the state department of education.	.43	1.40	1.00	1.13	.70
10. To review and monitor occupational research and development projects.	2.00	2.20	1.77	2.04	.16
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	2.86	3.40	3.77	3.42	.35
12. To conduct occupational research and development projects.	2.86	1.28	.62	1.33	2.97
13. To initiate research projects through involvement of RCU staff in proposal-writing.	1.43	.56	1.23	.89	2.97

(Continued)

Table 30. (Continued)

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.14	2.52	1.38	1.98	1.65
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.43	.88	.31	.64	.69
Number in Group	7	25	13		

[a]Outside SDE.
[b]Within SDE, administratively responsible to SDVE.
[c]Within SDE, administratively responsible to a position other than SDVE.
*Significant at .05 level by analysis of variance.
[d]Location I > Location II = Location III at .05 level by LSD.
[e]Location I > Location III, Location I = Location II, Location II = Location III, at .05 level by LSD.
[f]Location I > Location II > Location III at .05 level by LSD.

Table 30 demonstrated that RCUDs did assign different mean importance to RCU objectives depending on the administrative location of their state's RCU. In fact, significantly different mean values were detected for four objectives. RCUDs in Location I assigned significantly greater importance to objectives 1 (dissemination), 4 (coordination of in-state and out-of-state research), and 7 (identification of R & D resources) than did RCUDs in Locations II or III. RCUDs in Locations II and III assigned significantly greater importance to objective 8 (stimulation of researcher training) than RCUDs did in Location I. Consequently, Hypothesis 11 was rejected for objectives 11, 4, 7, and 8. The data failed to reject Hypothesis 11 for all other objectives.

Concerning relative importance, the objectives assigned greatest importance were 1 by RCUDs in Location I and 11 by RCUDs in Locations II and III. The objectives assigned least importance were 3, 6, and 8 by RCUDs in Location I; 3 by RCUDs in Location II: and 4 and 7 by RCUDs in Location III.

> Hypothesis 12: There is no significant difference in major objectives assigned to the RCU by the SDVE by administrative location of the state's RCU.

Assignment of major objectives to RCUs by SDVEs was analyzed by administrative location of the state's RCU. The results are presented in Table 31.

Table 31. Mean importance assigned to RCU objectives by SDVEs by administrative location of RCU.

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
1. To disseminate information on progress and application of occupational research.	2.83	1.96	1.70	2.03	.53
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	3.67	2.25	1.70	2.33	1.56
3. To create change in the administration of local vocational education programs.	.00	.04	.00	.03	--
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	1.00	.58	1.30	.83	.91
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	1.67	2.63	2.40	2.43	.43
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.00[d]	1.33[d]	.00[d]	.80	--[d]

(Continued)

Table 31. (Continued)

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
7. To identify and maintain an inventory of available occupational research and development resources in the state.	.83	.83	1.70	1.05	1.27
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	.00[e]	.79[e]	.40[e]	.58	.48*
9. To serve as a statistical research reporting service for the state department of education.	1.00	1.08	1.00	1.05	.01
10. To review and monitor occupational research and development projects.	1.00	1.46	2.70	1.70	1.92
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	4.17	2.71	2.90	2.98	.90
12. To conduct occupational research and development projects.	1.33	1.08	.50	.98	.49
13. To initiate research projects through involvement of RCU staff in proposal-writing.	2.33	.71	1.10	1.05	2.64

(Continued)

Table 31. (Continued)

Objective	Location I[a]	Location II[b]	Location III[c]	Total	f-ratio
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.17	2.38	3.30	2.43	1.43
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.00[d]	.83[d]	.00[d]	.50	--[d]
Number in Group	6	24	10		

[a]Outside SDE.
[b]Within SDE, administratively responsible to SDVE.
[c]Within SDE, administratively responsible to a position other than SDVE.
[d]Significant at .05 level by analysis of variance.
[e]Location II > Location I = Location III by inspection.
[e]Location II > Location III > Location I at .05 level by LSD.

SDVEs exhibited a pattern in their assignment of importance to RCU objectives somewhat similar to that of the RCUDs. Objectives with greatest mean importance were 11 in Locations I and II and 14 in Location III. Objectives with least mean importance according to SDVEs were 3, 6, and 8 in Location I; 3 in Location II; and 3, 6, and 15 in Location III. Significant differences in mean importance across administrative locations were detected for three objectives. SDVEs in Location II assigned significantly greater importance to objectives 6 (reporting clearinghouse), 8 (stimulation of researcher training), and 15 (identification of issues and problems). Hypothesis 12 was therefore rejected for objectives 6, 8, and 15. The data failed to reject Hypothesis 12 for all other objectives.

> Hypothesis 13a: There is no significant difference in major objectives assigned to the RCU by RCUDs and SDVEs when the state's RCU is administratively located outside the SDE (Location I).

Mean importance assigned major objectives by RCUDs was compared to that assigned by SDVEs within Location I. The results of that comparison are presented in Table 32.

Table 32. Mean importance assigned to RCU objectives by RCUDs and SDVEs for RCUs administratively located outside the SDE.

Objective	RCUD	SDVE	f-ratio
1. To disseminate information on progress and application of occupational research.	3.57	2.83	.35
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	1.57	3.67	2.33
3. To create change in the administration of local vocational education programs.	.00	.00	.00
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	1.29	1.00	.07
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	2.57	1.67	.55
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.00	.00	.00
7. To identify and maintain an inventory of available occupational research and development resources in the state.	1.29	.83	.30
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	.00	.00	.00

(Continued)

Table 32. (Continued)

Objective	RCUD	SDVE	f-ratio
9. To serve as a statistical research reporting service for the state department of education.	.43	1.00	.85
10. To review and monitor occupational research and development projects.	2.00	1.00	.68
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	2.86	4.17	.81
12. To conduct occupational research and development projects.	2.86	1.33	1.21
13. To initiate research projects through involvement of RCU staff in proposal-writing.	1.43	2.33	.65
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.14	1.16	.00
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.43	.00	--[a]
Number in Group	7	6	

[a]Significant difference by inspection.

Within Location I RCUDs and SDVEs generally agreed on their assignment of importance to major RCU objectives. In fact, no significant differences were detected between RCUD and SDVE mean importance scores on 14 of the major objectives. The one exception was objective 15, concerning identification of issues and problems, for which RCUDs assigned a significantly greater importance than SDVEs did. Therefore, Hypothesis 13a was rejected for objective 15. The data failed to reject Hypothesis 13a for all other objectives.

> Hypothesis 13b: There is no significant difference in major objectives assigned to the RCU by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to the SDVE (Location II).

Mean importance assigned major objectives by RCUDs was compared to that assigned by SDVEs within Location II. Results of that comparison are presented in Table 33.

Table 33. Mean importance assigned to RCU objectives by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to the SDVE.

Objective	RCUD	SDVE	f-ratio
1. To disseminate information on progress and application of occupational research.	1.52	1.96	.52
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	2.20	2.25	.01
3. To create change in the administration of local vocational education programs.	.28	.04	1.82
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	.56	.58	.00
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	1.56	2.63	3.27
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.64	1.33	1.46
7. To identify and maintain an inventory of available occupational research and development resources in the state.	.64	.83	.27

(Continued)

Table 33. (Continued)

Objective	RCUD	SDVE	f-ratio
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	1.16	.79	.46
9. To serve as a statistical research reporting service for the state department of education.	1.40	1.08	.30
10. To review and monitor occupational research and development projects.	2.20	1.46	1.63
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	3.40	2.71	.97
12. To conduct occupational research and development projects.	1.28	1.08	.12
13. To initiate research projects through involvement of RCU staff in proposal-writing.	.56	.71	.19
14. To determine occupational research needed to resolve the major vocational education issues and problems.	2.52	2.38	.04
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.88	.83	.01
Number in Group	25	24	

RCUDs and SDVEs within Location II were in agreement in their assignment of importance to major objectives of RCUs. No significant differences were detected for any of the objectives as they were assigned by RCUDs and SDVEs. The data failed to reject Hypothesis 13b for any of the major objectives.

> Hypothesis 13c: There is no significant difference in major objectives assigned to the RCU by RCUDs and SDVEs when the state's RCU is administratively located within the SDE responsible to a position other than the SDVE (Location III).

Mean importance assigned major objectives by RCUDs was compared to that assigned by SDVEs within Location III. Results of that comparison are presented in Table 34.

Table 34. Mean importance assigned to RCU objectives by RCUDs and SDVEs for RCUs located within the SDE, administratively responsible to a position other than the SDVE.

Objective	RCUD	SDVE	f-ratio
1. To disseminate information on progress and application of occupational research.	1.31	1.70	.28
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.	2.77	1.70	1.15
3. To create change in the administration of local vocational education programs.	.31	.00	--[a]
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.	.00	1.30	--[a]
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.	2.92	2.40	.29
6. To act as a clearinghouse for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.	.62	.00	--[a]
7. To identify and maintain an inventory of available occupational research and development resources in the state.	.00	1.70	--[a]

(Continued)

Table 34. (Continued)

Objective	RCUD	SDVE	f-ratio
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.	1.54	.40	3.10
9. To serve as a statistical research reporting service for the state department of education.	1.00	1.00	.00
10. To review and monitor occupational research and development projects.	1.77	2.70	1.00
11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.	3.77	2.90	.84
12. To conduct occupational research and development projects.	.62	.50	.04
13. To initiate research projects through involvement of RCU staff in proposal-writing.	1.23	1.10	.03
14. To determine occupational research needed to resolve the major vocational education issues and problems.	1.38	3.30	3.95
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.	.31	.00	--[a]
Number in Group	13	10	

[a]Significant difference by inspection.

RCUDs and SDVEs within Location III agreed in their assignment of importance to 10 objectives and disagreed in their assignment of importance to five objectives. Significant differences for mean importance were detected for objectives 3, 4, 6, 7, and 15. RCUDs assigned significantly higher importance to objectives 3 (creation of change in local programs), 6 (reporting clearinghouse), and 15 (identification of issues and problems). SDVEs assigned significantly higher importance to objectives 4 (coordination of in-state and out-of-state research) and 7 (identification of R & D resources). Consequently, Hypothesis 13c was rejected for those objectives. Hypothesis 13c was not rejected for all other objectives.

In summary, there was moderate change in assignment of major objectives to RCUs by RCUDs and SDVEs between 1969 and 1974. In addition RCUDs and SDVEs assigned somewhat different major objectives to RCUs depending on administrative location of the RCU; however, they were generally in agreement as to importance of objectives within the administrative locations.

General Summary of Findings

It was discovered that many RCUs have been administratively relocated since their inception in 1965-66. Fifty-seven percent of the original 44 RCUs were administratively within the SDE; whereas, in 1974, 86% of them were administratively within the SDE.

Staffing patterns varied according to administrative location of the RCUs. The number of full-time staff positions ranged from 5.1 for RCUs in Location I to 3.2 for RCUs in Location III. Full-time equivalent staff followed the same pattern with 7.5 for RCUs in

Location I and 3.6 for RCUs in Location III. RCUDs in Location I had the longest tenure (4.3 years), followed by RCUDs in Location III (3.3 years) and RCUDs in Location III (2.8 years).

RCUs utilized a variety of funding sources in addition to Part C, Section 131(b), of P. L. 90-576. State's share exemplary funds were utilized by 55% of the RCUs and EPDA, Sections 552 and 553, funds were utilized by 70% of the RCUs in Location I.

Findings concerning perceived and projected role of RCUs by RCUDs and SDVEs varied according to administrative location of the RCU. Table 35 summarizes the comparisons made under the null hypotheses and is helpful in discussing those findings.

Table 35. Summary of comparisons made and proportion of role categories for which each null hypothesis was rejected.

Hypothesis	Independent Variable	Dependent Variable	Group	Proportion of Role Categories Rejected Under the Null Hypothesis
1	Adm. Location of RCU	Perceived Role of RCU	All SDVEs	1/10
2	Adm. Location of RCU	Perceived Role of RCU	All RCUDs	2/10
3a	RCUD-SDVE	Perceived Role of RCU	Location I	0/10
3b	RCUD-SDVE	Perceived Role of RCU	Location II	1/10
3c	RCUD-SDVE	Perceived Role of RCU	Location III	2/10
4	Adm. Location of RCU	Projected Role of RCU	All SDVEs	3/10

(Continued)

Table 35. (Continued)

Hypothesis	Independent Variable	Dependent Variable	Group	Proportion of Role Categories Rejected Under the Null Hypothesis
5	Adm. Location of RCU	Projected Role of RCU	All RCUDs	0/10
6a	RCUD-SDVE	Projected Role of RCU	Location I	0/10
6b	RCUD-SDVE	Projected Role of RCU	Location II	0/10
6c	RCUD-SDVE	Projected Role of RCU	Location III	1/10
7a	Perceived-Projected	Role of RCU	RCUDs, Location I	1/10
7b	Perceived-Projected	Role of RCU	RCUDs, Location II	8/10
7c	Perceived-Projected	Role of RCU	RCUDs, Location III	9/10
8a	Perceived-Projected	Role of RCU	SDVEs, Location I	0/10
8b	Perceived-Projected	Role of RCU	SDVEs, Location II	8/10
8c	Perceived-Projected	Role of RCU	SDVEs, Location III	10/10

Eleven of the 16 separate null hypotheses concerning perceived and projected role of RCUs by RCUDs and SDVEs were rejected in whole or in part. For RCUDs and SDVEs within the three administrative locations, the findings showed there were significant differences between their perceived and projected roles for RCUs. In addition,

there were few significant differences on perceived and projected roles for RCUs by RCUDs and SDVEs across the three administrative locations. However, when perceived and projected roles for RCUs were compared for RCUDs and SDVEs within the three administrative locations, many significant differences were detected. In every case when perceived and projected roles for RCUs were compared, both RCUDs and SDVEs projected higher levels of involvement for RCUs than they perceived were actually occurring.

The findings also showed that major RCU objectives assigned by RCUDs and SDVEs have changed since 1969. Table 36 summarizes the comparisons made under the null hypotheses concerning major objectives of RCUs.

Table 36. Summary of comparisons made and proportion of RCU objectives for which each null hypothesis was rejected.

Hypothesis	Independent Variable	Dependent Variable	Group	Proportion of Objectives Rejected Under the Null Hypothesis
9	Date (1969-1974)	Importance	RCUDs	3/15
10	Date (1969-1974)	Importance	SDVEs	5/15
11	Adm. Location	Importance	RCUDs	4/15
12	Adm. Location	Importance	SDVEs	3/15
13a	RCUD-SDVE	Importance	Location I	1/15
13b	RCUD-SDVE	Importance	Location II	0/15
13c	RCUD-SDVE	Importance	Location III	5/15

RCUDs and SDVEs assigned significantly different importance to three and five objectives, respectively, in 1974 than in 1969. In addition, RCUDs assigned significantly different importance to four objectives for RCUs in the three administrative locations; whereas, SDVEs assigned significantly different importance to three objectives for RCUs in the three administrative locations.

Within Locations I and II RCUDs and SDVEs assigned relatively equal importance to all objectives, whereas in Location III RCUDs and SDVEs assigned significantly different importance to five RCU objectives.

CHAPTER V. DISCUSSION

This chapter is presented in four major sections. The first section briefly summarizes the entire study in order to reacquaint the reader with the literature reviewed, the conceptual framework, the methodology, and the findings of the study. The second section draws conclusions based on the findings of the study, and the third section discusses implications of the conclusions. The fourth section presents recommendations for further research.

Summary of the Study

RCUs were first authorized under the Vocational Education Act of 1963. In 1965-66, 44 RCUs were established within the states; presently, due primarily to the strengthening influence of the 1968 Vocational Education Amendments Act, RCUs are in existence in all of the 50 states. RCUs have had little overall direction by the USOE and consequently have developed varying roles and objectives in serving the vocational research needs within individual states. They have also developed roles of varying relationships with SDVEs.

Administrative locations of RCUs have also varied from state to state. While some states have administratively located their RCUs outside the SDE, other states have placed their RCUs within the SDE, in some cases administratively responsible to the SDVE and in other cases responsible to a position other than the SDVE.

The specific problem addressed in this study was, "Is there a difference in the viewpoints of RCUDs and SDVEs regarding the roles and major objectives of RCUs, and are these views dependent on the

location of the RCU -- outside the SDE, within the SDE responsible to the SDVE, or within the SDE responsible to a position other than the SDVE?"

Hypotheses tested in the study were:

1. There is no significant difference in a SDVE's perceived role of the RCU by administrative location of the state's RCU.

2. There is no significant difference in a RCUD's perceived role of the RCU by administrative location of the state's RCU.

3. There is no significant difference in the perceived role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located:

   a. Outside the SDE (Location I).
   b. Within the SDE responsible to the SDVE (Location II).
   c. Within the SDE responsible to a position other than the SDVE (Location III).

4. There is no significant difference in a SDVE's projected role of the RCU by administrative location of the state's RCU.

5. There is no significant difference in a RCUD's projected role of the RCU by administrative location of the state's RCU.

6. There is no significant difference in the projected role of the RCU held by RCUDs and SDVEs when the state's RCU is administratively located:

   a. Outside the SDE (Location I).
   b. Within the SDE responsible to the SDVE (Location II).
   c. Within the SDE responsible to a position other than the SDVE (Location III).

7. There is no significant difference in a RCUD's perceived and projected role for the RCU when the state's RCU is administratively located:

   a. Outside the SDE (Location I).
   b. Within the SDE responsible to the SDVE (Location II).
   c. Within the SDE responsible to a position other than the SDVE (Location III).

8. There is no significant difference in a SDVE's perceived and projected role for the RCU when the state's RCU is administratively located:

   a. Outside the SDE (Location I).
   b. Within the SDE responsible to the SDVE (Location II).
   c. Within the SDE responsible to a position other than the SDVE (Location III).

9. There is no significant difference in major objectives assigned to RCUs by RCUDs in the 1969 Goldhammer Study and in the present study.

10. There is no significant difference in major objectives assigned to RCUs by SDVEs in the 1969 Goldhammer Study and in the present study.

11. There is no significant difference in major objectives assigned to the RCU by the RCUD by administrative location of the state's RCU.

12. There is no significant difference in major objectives assigned to the RCU by the SDVE by administrative location of the state's RCU.

13. There is no significant difference in major objectives assigned to the RCU by RCUDs and SDVEs when the state's RCU is administratively located:

   a. Outside the SDE (Location I).
   b. Within the SDE responsible to the SDVE (Location II).
   c. Within the SDE responsible to a position other than the SDVE (Location III).

Data were collected using a questionnaire mailed to RCUDs and SDVEs in the 50 states. Responses were received from 92.0% of the RCUDs and 88.0% of the SDVEs. The questionnaire asked RCUDs and SDVEs to record perceived and projected degrees of role responsibility for their state's RCU for 54 statements of role responsibility. They were also asked to select and prioritize from a list of 15 objectives the six objectives they felt appropriate for their state's RCU.

Data from the 1969 Goldhammer Study concerning the same objectives were used to make longitudinal comparisons.

It was discovered that many RCUs have been administratively relocated since their inception in 1965-66. Fifty-seven percent of the original 44 RCUs were administratively within the SDE, whereas, in 1974, 86% of them were administratively within the SDE.

Staffing patterns varied according to administrative location of the RCUs. Number of full-time staff positions ranged from 5.1 for RCUs in Location I to 3.2 for RCUs in Location III. Full-time equivalent staff followed the same pattern with 7.5 for RCUs in Location I and 3.6 for RCUs in Location III. RCUDs in Location I had the longest tenure (4.3 years) followed by RCUDs in Location II (2.8 years).

RCUs utilized a variety of funding sources in addition to Part C, Section 131(b), of P. L. 90-576. State's share exemplary funds were utilized by 55% of the RCUs and EPDA, Sections 552 and 553, funds were utilized by 70% of the RCUs in Location I.

Findings concerning perceived and projected role of RCUs by RCUDs and SDVEs varied according to administrative location of the RCU. Eleven of the 16 separate null hypotheses concerning perceived and projected role of RCUs by RCUDs and SDVEs were rejected in whole or in part. In general, the findings showed that there were few significant differences between RCUDs and SDVEs on their perceived and projected roles for RCUs within the three administrative locations. In addition, there were few significant differences on perceived and projected roles for RCUs by RCUDs and SDVEs across the three

administrative locations. However, when perceived and projected roles for RCUs were compared for RCUDs and SDVEs within the three administrative locations, many significant differences were detected. In every case when perceived and projected roles for RCUs were compared, both RCUDs and SDVEs projected a greater degree of involvement for RCUs than they perceived was actually occurring.

The findings also showed that major RCU objectives assigned by RCUDs and SDVEs have changed since 1969. RCUDs and SDVEs assigned significantly different importance to a total of three and five objectives, respectively, in 1974 than in 1969. In addition, RCUDs assigned significantly different importance to four objectives for RCUs in the three administrative locations; whereas, SDVEs assigned significantly different importance to three objectives for RCUs in the three administrative locations.

Within Locations I and II RCUDs and SDVEs assigned relatively equal importance to all objectives; whereas, in Location III RCUDs and SDVEs assigned significantly different importance to five RCU objectives.

Conclusions

This study concerned itself with the general problem of describing the roles and objectives of RCUs as seen by RCUDs and SDVEs. More specifically, the study compared perceived and projected roles and major objectives of RCUs held by RCUDs and SDVEs for RCUs located within different administrative settings.

Conclusions, based on the findings of the study, were as follows:

1. There was evidence of a definite trend to locate RCUs within the administrative structure of the SDE. In addition, those RCUs located within the administrative structure of the SDE were increasingly being incorporated into work units concerned with more than just vocational education research.

2. RCUs located within the administrative structure of the SDE had smaller staffs and administered a smaller variety of funds than RCUs located outside the administrative structure of the SDE.

3. SDVEs and RCUDs separately perceived similar roles for RCUs regardless of the administrative location of the RCU.

4. SDVEs and RCUDs agreed on what they perceived as the role of the RCU regardless of the administrative location of the RCU.

5. SDVEs generally projected similar roles for RCUs in different administrative locations; however, they projected different roles for RCUs in different administrative locations in the categories of state plan, exemplary project administration, and research project administration.

6. RCUDs projected similar roles for RCUs regardless of the administrative location of the RCU.

7. RCUDs and SDVEs agreed on a projected role for RCUs regardless of the administrative location of the RCU.

8. RCUDs and SDVEs both projected a role for RCUs in Location I that was no different from what they perceived it to be.

9. RCUDs and SDVEs both projected a role for RCUs in Locations II and III that was much more active than they perceived it to be.

10. RCUDs and SDVEs have made moderate changes in the assignment of objectives to RCUs in the five-year period between 1969 and 1974.

11. RCUDs and SDVEs assigned different objectives to RCUs depending on the administrative location of the RCU.

12. RCUDs and SDVEs agreed on their assignment of objectives to RCUs in Locations I and II but disagreed on their assignment of objectives to RCUs in Location III.

Implications

Possible implications of the study are far-reaching and have potentially different meanings for different audiences. However, there are implications for RCUDs and their staffs, for SDVEs and their staffs, and for the USOE.

From the data it is apparent that either SDVEs are satisfied with the performance of RCUs outside the SDE and therefore project no change in their role, or SDVEs are dissatisfied with the performance of RCUs outside the SDE and would discourage any increased level of involvement on their part. The data would imply that the latter is true in that many RCUs have been moved into the administrative structure of the SDE and a majority of these are administratively responsible to the SDVEs. However, it is just as possible that only the most viable RCUs avoided administrative relocation to the SDE and therefore are providing stronger research leadership than their counterparts in other administrative locations.

The data also imply that RCUs in different administrative locations have adopted different objectives. The data do not prove but suggest that, even within similar administrative locations, objectives of RCUs vary from state to state. This is as it should be.

The state share of vocational research funds should be spent as each state sees fit, and the USOE should continue its "hands-off" posture regarding objectives of state RCUs.

If SDVEs and RCUDs have their way, RCUs within the administrative structure of the SDE apparently face more intensive role responsibilities (even though those RCUs have smaller staffs and a smaller variety of funding sources). Now is the time to begin planning for increased work loads and possibly increased staffs. Data presented in this study should provide a perspective for individual RCUs beginning this task. They should also help each SDVE to conceptualize what the state's RCU is capable of and can realistically be expected to do.

The USOE in its constant search for descriptive information about RCUs should pay particular attention to this study. Implications are here which have the potential of assisting the further development of a nationwide system of RCUs even more viable than it has been.

Recommendations

As with most research this study has raised as many questions as it has answered. There is a definite need for more study of the roles and objectives of RCUs. Not the least of these is a follow-up of this study several years hence. The 1969 Goldhammer Study provided baseline information upon which this study was conceived. This study could just as well provide the basis for other studies. Longitudinal studies profiling the changing nature of RCUs would provide valuable historical as well as program management data for the USOE and for individual RCUs.

The instruments developed in the study could assist an individual RCU in assessing role perceptions held by client groups within its service area. The results could provide information relevant to efforts in public relations, information, and program planning.

It was concluded that SDVEs projected no change in amount of responsibility for RCUs outside the SDE. Further research is needed to determine if that attitude is correlated with SDVEs' satisfaction with the performance of those RCUs. The results of such a study would have direct bearing on relating future program efforts of RCUs outside the SDE to those within the SDE.

This study compared perceived and projected roles for RCUs held by RCUDs and SDVEs. Although implications of one aspect of "client satisfaction" can be drawn from the data, that particular aspect was not directly addressed in the study. Further research is needed to determine how satisfied both RCUDs and SDVEs are with the performance of RCUs in different administrative locations.

The list of RCU objectives used in this study were those developed in the 1969 Goldhammer Study. RCUDs and SDVEs were asked to choose from a list of 15 to describe the objectives of their state's RCU. Further research is needed to define more accurately the objectives of RCUs. One suggestion would be a list of open-ended questions with follow-up through the Delphi technique.

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APPENDIX A

MEMBERS OF THE NATIONAL ADVISORY COMMITTEE

MEMBERS OF THE NATIONAL ADVISORY COMMITTEE

Dr. Garry R. Bice
Tennessee Research Coordinating Unit
Knoxville, Tennessee

Dr. Ferman B. Moody
Pennsylvania State Department of Education
Harrisburg, Pennsylvania

Dr. Jerome Moss, Jr.
Minnesota Research Coordinating Unit
Minneapolis, Minnesota

Dr. James F. Shill
Mississippi Research and Curriculum Unit
State College, Mississippi

Mr. Glenn E. Smith
West Virginia Research Coordinating Unit
Huntington, West Virginia

Dr. William W. Stevenson
Oklahoma State Department of Vocational and Technical Education
Stillwater, Oklahoma

APPENDIX B

SDVE INSTRUMENT COVER LETTER

A STUDY OF

ROLES AND OBJECTIVES OF STATE RESEARCH COORDINATING UNITS

August 30, 1974

TO: State Directors of Vocational Education

Dear Colleague:

I'm sure you receive many requests for information, but I feel your response to the enclosed questionnaire will be to your benefit -- I'm sure it will help me a great deal.

During my four-year tenure with the North Carolina Research Coordinating Unit I have become deeply committed to the field of occupational education research. This study will fulfill a personal and professional need as well as partial requirements for an advanced degree.

The questionnaire should take about 30 minutes of your time. Hopefully, it will be self-explanatory.

I am also sending a similar questionnaire to the Director of your state's Research Coordinating Unit. I would appreciate your encouraging the RCU Director to complete and return the RCU questionnaire as soon as possible.

A few minutes of your time will be extremely valuable to me. Please complete the questionnaire and return it at your earliest convenience.

Respectfully yours,

Jesse S. Clemmons
Room 510, Education Building
State Department of Public Instruction
Raleigh, North Carolina 27611

Enclosures

1. Questionnaire
2. Return Envelope

APPENDIX C

SDVE INSTRUMENT

State Director _____

State _____

SECTION I - OBJECTIVES

Listed below are possible objectives for an RCU. In the boxes at the top, please place the numbers of up to six statements which, in your opinion, represent the objectives of the RCU in your state. Place the number of the most important objective in box #1, the second most important objective in box #2, and so on to box #6. In making this ranking, please think in terms of the importance of the objective for your state's RCU rather than for RCUs in general.

Priority #1	Priority #2	Priority #3	Priority #4	Priority #5	Priority #6

1. To disseminate information on progress and application of occupational research.

2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.

3. To create change in the administration of local vocational education programs.

4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.

5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.

6. To act as a clearing house for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.

7. To identify and maintain an inventory of available occupational research and development resources in the state.

8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.

9. To serve as a statistical research reporting service for the state department of education.

10. To review and monitor occupational research and development projects.

11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.

12. To conduct occupational research and development projects.

13. To initiate research projects through involvement of RCU staff in proposal-writing.

14. To determine occupational research needed to resolve the major vocational education issues and problems.

15. To identify issues and problems relating to the nature and place of vocational education in the state school system.

16. Other (specify) _____

_____

* *

SECTION II - EMPHASIS AREAS

Listed below are various categorical areas with which RCUs concern themselves. Examine the list and indicate,for each item, the relative degree of emphasis assigned to it by your state's RCU. In other words, in which areas does your state's RCU presently concentrate its funds and efforts? Respond by circling the appropriate number for each item.

	Area	Low Emphasis				High Emphasis
1.	Technical Assistance (Consulting)	1	2	3	4	5
2.	In-house Conducted Research and Evaluation	1	2	3	4	5
3.	Dissemination	1	2	3	4	5
4.	Curriculum Development	1	2	3	4	5
5.	Training Research Personnel	1	2	3	4	5
6.	State Plan	1	2	3	4	5
7.	Part D - Exemplary Project Administration	1	2	3	4	5
8.	Part C - Research Project Administration	1	2	3	4	5
9.	Management Information System	1	2	3	4	5
10.	Reporting Clearinghouse	1	2	3	4	5
11.	Other (specify) _____ _____	1	2	3	4	5

SECTION III - ROLE PERCEPTIONS

This section is designed to elicit your perception of the role of your state's RCU in relation to various activities identified (1) as it now is and (2) as you think it should be. Respond for your state's RCU specifically, not for RCUs in general. Please use the following key to record your perceptions in both domains for each statement.

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------ 3 ------	4 ------ 5 ------	6 ------ 7
LOW Responsibility			HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
1. Provide technical assistance to SEA	___	___
2. Provide technical assistance to LEAs	___	___
3. Provide technical assistance to universities	___	___
4. Provide technical assistance to State Advisory Council	___	___
5. Conduct in-house research or development projects	___	___
6. Perform research under contract for other agencies	___	___
7. Conduct statewide evaluations	___	___
8. Conduct evaluations within LEAs	___	___
9. Conduct special project evaluations	___	___
10. Conduct follow-up of occupational education students	___	___
11. Disseminate research information to general educators	___	___
12. Disseminate research information to occupational educators	___	___
13. Conduct dissemination workshops, conferences, etc.	___	___
14. Produce dissemination newsletters, fliers, etc.	___	___
15. Provide information search and retrieval services	___	___
16. Develop curriculum through special funded projects	___	___

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------	3 ------	4 ------ 5 ------ 6 ------ 7

LOW Responsibiiity — HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
17. Develop curriculum though in-house (RCU) activities	____	____
18. Support curriculum development in LEAs	____	____
19. Support curriculum development in universities	____	____
20. Support curriculum development in SEA (Curriculum Lab)	____	____
21. Identify training needs of research personnel	____	____
22. Plan training sessions for research personnel	____	____
23. Conduct training sessions for research personnel	____	____
24. Teach college level research courses	____	____
25. Conduct needs assessment for state plan	____	____
26. Develop entire state plan	____	____
27. Develop research section of state plan	____	____
28. Disseminate state plan	____	____
29. For Part D - Exemplary (state share)		
a. Conduct needs assessment	____	____
b. Develop priorities	____	____
c. Develop proposals	____	____
d. Review and evaluate proposals	____	____

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------ 3 ------	4 ------ 5 ------	6 ------ 7

LOW Responsibility	HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
e. Monitor on-going projects	___	___
f. Evaluate projects	___	___
g. Solicit third-party evaluators	___	___
h. Select third-party evaluators	___	___
i. Disseminate results of projects	___	___
30. For Part C - Research (state share)		
a. Conduct need assessment	___	___
b. Develop priorities	___	___
c. Develop proposals	___	___
d. Review and evaluate proposals	___	___
e. Monitor on-going projects	___	___
f. Evaluate projects	___	___
g. Solicit third-party evaluators	___	___
h. Select third-party evaluators	___	___
i. Disseminate results of projects	___	___
31. Design management information system	___	___
32. Maintain management information system	___	___
33. Collect student enrollment data for management information system	___	___

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------	3 ------ 4 ------ 5 ------	6 ------ 7

LOW Responsibility	HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
34. Collect manpower demand information	____	____
35. Analyze and project manpower demand information	____	____
36. Publicize findings of management information system	____	____
37. Prepare research-related descriptive reports to SEA, USOE, Congress, etc.	____	____
38. Prepare statistical reports to USOE, SEA, Congress, etc.	____	____

THANK YOU FOR RESPONDING!

PLEASE MAIL IMMEDIATELY

APPENDIX D

SDVE REMINDER POSTCARD

September 3, 1974

TO: State Directors of Vocational Education

On August 30 I mailed you a questionnaire concerning your perception of the roles and objectives of your state's Research Coordinating Unit. The RCU Director in your state was mailed a similar instrument.

I encourage you to complete and return the questionnaire as soon as time permits. As with all mailed surveys, a high rate of return is extremely desirable.

Thank you,
Jesse S. Clemmons
Room 510, Education Building
Raleigh, North Carolina 27611

APPENDIX E

SDVE FOLLOW-UP LETTER

A STUDY OF

ROLES AND OBJECTIVES OF STATE RESEARCH COORDINATING UNITS

September 13, 1974

TO: Selected State Directors of Vocational Education

Dear Colleague:

As of this mailing I have not received your response to a questionnaire I mailed you on August 30, 1974. If it is in the mail, please accept my thanks for your cooperation. If you have not completed and mailed the questionnaire, let me encourage you to do so at your earliest convenience.

I feel sure you have conducted research studies before and that you realize the importance of accurateness and completeness of the data -- a fact that is doubly important in mailed surveys.

A second questionnaire is enclosed in case you have misplaced the one I previously sent you.

May I hear from you soon?

Sincerely,

Jesse S. Clemmons
State Department of Public Instruction
Room 510, Education Building
Raleigh, North Carolina 27611

JSC/sr

Enclosures
1. Questionnaire
2. Return Envelope

APPENDIX F

RCUD INSTRUMENT COVER LETTER

A STUDY OF

ROLES AND OBJECTIVES OF STATE RESEARCH COORDINATING UNITS

August 30, 1974

TO: Directors of State Research Coordinating Units

Dear Colleague:

I'm sure you receive many requests for information, but I feel your response to the enclosed questionnaire will be to your benefit -- I'm sure it will help me a great deal.

During my four-year tenure with the North Carolina RCU I have become deeply committed to the field of occupational education research. This study will fulfill a personal and professional need as well as partial requirements for an advanced degree.

The questionnaire should take about 30 minutes of your time. Hopefully, it will be self-explanatory.

I am also sending a similar questionnaire to your State Director of Vocational Education. However, the State Director questionnaire omits Section I. I would appreciate your encouraging your State Director to complete and return his questionnaire as soon as possible.

A few minutes of your time will be extremely valuable to me. Please complete the questionnaire and return it at your earliest convenience.

Respectfully yours,

Jesse S. Clemmons
Room 510, Education Building
State Department of Public Instruction
Raleigh, North Carolina 27611

Enclosures
1. Questionnaire
2. Return Envelope

APPENDIX G

RCUD INSTRUMENT

RCU DIRECTOR _____

STATE _____

SECTION I - DESCRIPTIVE DATA

1. Indicate the finding sources of your RCU by checking the sources of funds your RCU administers or has primary responsibility for:

_____ 1968 Vocational Education Amendments, Part C (State's Share)

_____ 1968 Vocational Education Amendments, Part D (State's Share)

_____ EPDA, 552

_____ EPDA, 553

_____ State Research or Development Funds

_____ Others (Please Specify)

_____ _____

_____ _____

2. Indicate the number of all non-clerical staff assigned to the RCU by percent of time allotted to RCU activities:

	Percent of Time	Number
Full-Time Staff	100%	_____
Part-Time Staff	_____	_____
	_____	_____
	_____	_____
Graduate Student	50%	_____
	_____	_____
	_____	_____

3. How long have you held the position of RCU Director? _____ years
OR _____ months
If the RCU has Co-Directors, indicate length of time in position for each:

Co-Director #1 _____ years _____ months
Co-Director #2 _____ years _____ months

4. What percent of time does the RCU Director (or Co-Directors) devote to RCU activities?

_____ _____

5. To what immediate position title is the RCU Director (or Co-Directors) administratively responsible?

_____

6. Attach a diagram or pattern reflecting the administrative structure of the RCU beginning with the highest level (individual or board) and extending at least through the RCU consultant (professional staff) level. Show relationship of advisory councils or boards, if any. (Or, you may sketch a diagram in the space below.)

7. Is this RCU: (Check One)

   a. _____ situated outside the administrative hierarchy of the state department of education?
   b. _____ situated within the administrative hierarchy of the state department of education?

8. Is this RCU: (Check One)

   a. _____ administratively responsible to the state director of vocational education?
   b. _____ administratively responsible to a position other than the state director of vocational education?

9. Is this RCU: (Check One)

   a. _____ operationally responsible to the state director of vocational education?
   b. _____ operationally responsible to a position other than the state director of vocational education?

10. Indicate the approximate amounts of funds from all sources available to the RCU for operating expenses, grants, and contracts during the current fiscal year (1974-75). Do not include carry-over funds from previous fiscal years.

SOURCE	AMOUNT
Federal (Specify)	
1968 VEA, Part C (State Share)	
1968 VEA, Part D (State Share)	
State (Specify)	
Other (Specify, include research contracted to RCU)	

11. Indicate the approximate total amount of funds from all sources allotted to RCU operating expenses (excluding grants and contracts) during the current fiscal year (1974-75). Do not include carry-over funds from previous fiscal years.

_____

12. Indicate the approximate total amount of funds from all sources available for RCU-administered grants and contracts during the current fiscal year (1974-75). Do not include carry-over funds from previous fiscal years.

_____

SECTION II - OBJECTIVES

Listed below are possible objectives for an RCU. In the boxes at the top, please place the numbers of up to six statements which most nearly represent the objectives of your RCU. Place the number of the most important objective in box #1, the second most important objective in box #2, and so on to box #6. In making this ranking, please think in terms of the importance of the objective for your RCU rather than for RCUs in general.

Priority #1	Priority #2	Priority #3	Priority #4	Priority #5	Priority #6

1. To disseminate information on progress and application of occupational research.
2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.
3. To create change in the administration of local vocational education programs.
4. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.
5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.
6. To act as a clearing house for all Federal financial and other statistical reports relating to expenditure (accounting) of Federal funds and program enrollments, etc.
7. To identify and maintain an inventory of available occupational research and development resources in the state.
8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.
9. To serve as a statistical research reporting service for the state department of education.
10. To review and monitor occupational research and development projects.

11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.

12. To conduct occupational research and development projects.

13. To initiate research projects through involvement of RCU staff in proposal-writing.

14. To determine occupational research needed to resolve the major vocational education issues and problems.

15. To identify issues and problems relating to the nature and place of vocational education in the state school system.

16. Other (specify) _____

_____

* *

SECTION III - EMPHASIS AREAS

Listed below are various categorical areas with which RCUs concern themselves. Examine the list and indicate, for each item, the relative degree of emphasis assigned to it by your RCU. In other words, in which areas does your RCU presently concentrate its funds and efforts? Respond by circling the appropriate number for each item.

Area	Low Emphasis				High Emphasis
1. Technical Assistance (Consulting)	1	2	3	4	5
2. In-house Conducted Research and Evaluation	1	2	3	4	5
3. Dissemination	1	2	3	4	5
4. Curriculum Development	1	2	3	4	5
5. Training Research Personnel	1	2	3	4	5
6. State Plan	1	2	3	4	5
7. Part D - Exemplary Project Administration	1	2	3	4	5
8. Part C - Research Project Administration	1	2	3	4	5

Area	Low Emphasis				High Emphasis
9. Management Information System	1	2	3	4	5
10. Reporting Clearinghouse	1	2	3	4	5
11. Other (specify) _____	1	2	3	4	5

SECTION IV - ROLE PERCEPTIONS

This section is designed to elicit your perceptions of the role of your RCU in relation to various activities identified (1) as it now is and (2) as you think it should be. Respond for your RCU specifically, not for RCUs in general. Please use the following key to record your perceptions in both domains for each statement.

Response Key

Have No Involvement — Consult When Asked — Assist, or Co-direct — Assume Leadership

1 ------ 2 ------ 3 ------ 4 ------ 5 ------ 6 ------ 7

LOW Responsibility — HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
1. Provide technical assistance to SEA	____	____
2. Provide technical assistance to LEAs	____	____
3. Provide technical assistance to universities	____	____
4. Provide technical assistance to State Advisory Council	____	____
5. Conduct in-house research or development projects	____	____
6. Perform research under contract for other agencies	____	____
7. Conduct statewide evaluations	____	____

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------	3 ------ 4 ------ 5 ------	6 ------ 7

LOW Responsibility	HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
8. Conduct evaluations within LEAs	____	____
9. Conduct special project evaluations	____	____
10. Conduct follow-up of occupational education students	____	____
11. Disseminate research information to general educators	____	____
12. Disseminate research information to occupational educators	____	____
13. Conduct dissemination workshops, conferences, etc.	____	____
14. Produce dissemination newsletters, fliers, etc.	____	____
15. Provide information search and retrieval services	____	____
16. Develop curriculum through special funded projects	____	____
17. Develop curriculum through in-house (RCU) activities	____	____
18. Support curriculum development in LEAs	____	____
19. Support curriculum development in universities	____	____
20. Support curriculum development in SEA (Curriculum Lab)	____	____
21. Identify training needs of research personnel	____	____
22. Plan training sessions for research personnel	____	____
23. Conduct training sessions for research personnel	____	____

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------	3 ------ 4 ------ 5 ------	6 ------ 7

LOW Responsibility	HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
24. Teach college level research courses	___	___
25. Conduct needs assessment for state plan	___	___
26. Develop entire state plan	___	___
27. Develop research section of state plan	___	___
28. Disseminate state plan	___	___
29. For Part D - Exemplary (state share)		
a. Conduct needs assessment	___	___
b. Develop priorities	___	___
c. Develop proposals	___	___
d. Review and evaluate proposals	___	___
e. Monitor on-going projects	___	___
f. Evaluate projects	___	___
g. Solicit third-party evaluators	___	___
h. Select third-party evaluators	___	___
i. Disseminate results of projects	___	___
30. For Part C - Research (state share)		
a. Conduct needs assessment	___	___
b. Develop priorities	___	___

Response Key

Have No Involvement	Consult When Asked	Assist, or Co-direct	Assume Leadership
1 ------	2 ------	3 ------ 4 ------ 5 ------	6 ------ 7

LOW Responsibility	HIGH Responsibility

STATEMENT	THIS RCU: DOES	SHOULD
c. Develop proposals	____	____
d. Review and evaluate proposals	____	____
e. Monitor on-going projects	____	____
f. Evaluate projects	____	____
g. Solicit third-party evaluators	____	____
h. Select third-party evaluators	____	____
i. Disseminate results of projects	____	____
31. Design management information system	____	____
32. Maintain management information system	____	____
33. Collect student enrollment data for management information system	____	____
34. Collect manpower demand information	____	____
35. Analyze and project manpower demand information	____	____
36. Publicize findings of management information system	____	____
37. Prepare research-related descriptive reports to SEA, USOE, Congress, etc.	____	____
38. Prepare statistical reports to USOE, SEA, Congress, etc.	____	____

THANK YOU FOR RESPONDING!

PLEASE MAIL IMMEDIATELY

APPENDIX H

RCUD REMINDER POSTCARD

September 3, 1974

To: RCU Directors

On August 30 I mailed you a questionnaire concerning your perception of the roles and objectives of your RCU. Your State Director of Vocational Education was mailed a similar instrument.

I encourage you to complete and return the questionnaire as soon as time permits. As with all mailed surveys, a high rate of return is extremely desirable.

Thank you,
Jesse S. Clemmons
Room 510, Education Building
Raleigh, North Carolina 27611

APPENDIX I

RCUD FOLLOW-UP LETTER

A STUDY OF

ROLES AND OBJECTIVES OF STATE RESEARCH COORDINATING UNITS

September 13, 1974

TO: Selected Directors of State Research Coordinating Units

Dear Colleague:

As of now I have not received your response to a questionnaire I mailed you on August 30, 1974. If it is in the mail, please accept my thanks for your cooperation. If you have not completed and mailed the questionnaire, let me encourage you to do so at your earliest convenience.

I feel sure you have conducted research studies before and that you realize the importance of accurateness and completeness of the data -- a fact that is doubly important in mailed surveys.

A second questionnaire is enclosed in case you have mispiaced the one I previously sent you.

May I hear from you soon?

Sincerely,

Jesse S. Clemmons
State Department of Public Instruction
Room 510, Education Building
Raleigh, North Carolina 27611

JSC/sr

Enclosures
1. Questionnaire
2. Return Envelope

VITA

The author, Jesse Stewart Clemmons, was born August 10, 1943, at Supply in Brunswick County, North Carolina. He attended Shallotte High School in Shallotte, North Carolina. After graduation in 1961, he entered Campbell College at Buies Creek, North Carolina, and in 1964 transferred to North Carolina State University at Raleigh. He was awarded the Bachelor of Science in Agricultural Education in 1967 and the Master of Education in Agricultural Education in 1968 by that institution. During 1968 and 1969 he completed one year of residency at The Pennsylvania State University.

In 1969 he was employed by Johnston County Schools where he taught Vocational Agriculture at Princeton High School, Princeton, North Carolina. Since 1970 he has been employed by the North Carolina State Department of Education as Assistant Director of the Occupational Research Unit.

He is a member of the American Vocational Association, the North Carolina Vocational Association, the American Vocational Education Research Association, the North Carolina Association for Research in Education, and Phi Delta Kappa.